

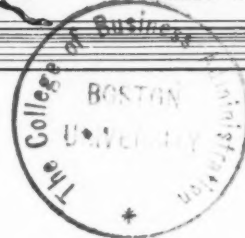
# Manufacturers Record

## Exponent of America



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Baltimore, Md.  
MARCH 15, 1923



### THEN AND NOW.

A year ago there were nearly 500,000 idle freight cars in the country. Now there is a shortage of nearly 100,000 cars, and a still larger number could be used if they were available.

Then the iron and steel interests were running at about 30 per cent capacity. Now they are running at from 80 per cent to 85 per cent capacity, and limited only by the lack of transportation.

Then business was stagnant and pessimism ruled. Now business is active, and growing more and more active day by day, and optimism rules the land.

Then there was uncertainty in the minds of free traders and of many honest minded people who believed that a protective tariff would depress our export and import trade. Now our export and import trade are growing with remarkable rapidity, and the shipments of farm products and of manufactured goods, as well as imports from other lands, are setting at naught all the predictions of disaster of the free traders a year ago.

Then there was some uncertainty as to the extent of construction activity which would prevail throughout the land. Now construction is proceeding at an almost unprecedented rate in the building of dwellings, apartment houses, magnificent hotels, office buildings, banks, churches and schools; and practically in every other line of construction work, activity is vigorously under way.

Then the railroads had ordered very few locomotives and cars. Now the car and locomotive shops are crowded with orders from railroads which will tax many of them to their capacity for months to come.

Then the railroad officials were in despair, not knowing how they would be able to meet their obligations and expand their facilities to take care of the traffic. Now the railroads are working on safe ground, with a margin of profit which will enable them to finance for great improvements and an increase in rolling stock beyond anything which they had been doing for six or seven years.

Then the iron and steel and kindred interests were at a very low depth. Dullness, depression and almost despair ruled in many an office of companies big and little. Now the demand for iron and steel products exceeds the output, and everybody is busy and happy.

Then cotton was low and every bale sold increased the poverty of the growers. Now cotton is higher and every bale sold yields a fair margin of profit to most producers.

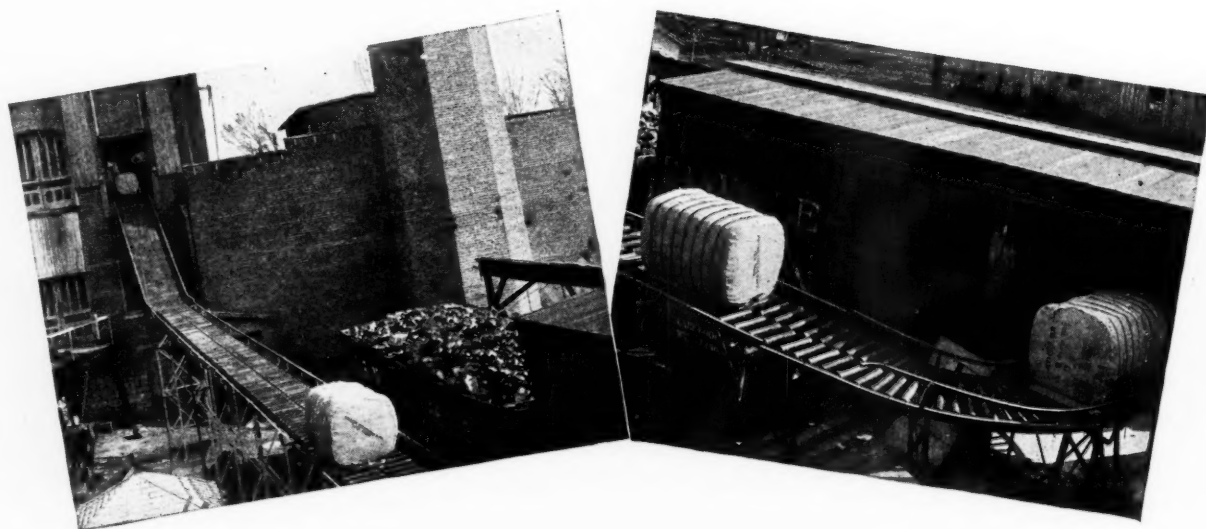
Then the farmers of the West, like those of the South, were suffering in dire poverty. Now increased prices for wheat and corn and cattle and hogs have lifted many millions of dollars of indebtedness and encouraged the Western farmers, as well as Southern farmers, to go ahead with their work.

Then no man dared forecast what would happen unless he forecasted poverty by the continuation of the policy of deflation which might at any moment be enforced so long as the influences which then controlled the Reserve Board dominated the situation. Now that fear has been dispelled and there is confidence where there was uncertainty. Now there is an increasing realization that the day of secrecy in financial matters controlling the country's business interests is passing away, and openness and constructive work will take the place of secrecy and destructive efforts.

Then exports and imports alike were small. Now exports and imports are heavy and rapidly expanding.

These are but a few of the striking things which indicate the wonderful change that has taken place in nearly every line of business and in every section of the country.

But more than this is the realization of the fact that the tide has completely turned, that the wrecks strewn on the shores of the business ocean of this land are being cleared away by the rising flood of improvement in business conditions.



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M. W. Darby, Supt. (Signed)

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# Manufacturers Record

Exponent of America

MARCH 15, 1923

Volume LXXXIII

## Table of Contents

Number 11

Then and Now .....Cover Page

### EDITORIALS - - - - - 57-64

Anything in the MANUFACTURERS RECORD Can Be Reprinted by Others.  
Florida-Made Sugar.  
From Proceedings of United States Senate.  
Is Rubber Growing a Commercial Possibility in Florida?  
Farm Labor at Low Wages Vs. Industrial Labor at High Prices.  
The Need of Training Schools for the Building Trades.  
Heavy Imports of Foreign Goods.

Marked Business Revival in Every Direction.  
Boll Weevil Exterminator That Is Reported to Have Proved Effective.  
Suggestions for Furniture Factories in Florida.  
Smallest Stock of Grain on Farms in Three Years.  
For France.  
Lower Rates of Interest to Agriculture and Longer Credits Essential to National Prosperity.  
The Disgrace of Maryland's Race Track Gamblers.

### NEWS ARTICLES

French Entirely Qualified for Administering the Ruhr.....	By Godfrey M. S. Tait	64
4,000,000 Peach Trees, All in Bloom, Bring Spring-Time Glory to Sandhills of North Carolina.....	—By Albert Phenix	65
The Problem of New Recruits for the Building Trades.....	By J. B. Landers	69
Mississippi Valley Land Owners Seeking Foreign Settlers .....		71
\$18,000,000 Improvement Program for Georgia Railway & Power Company.....		73
Missouri Pacific Railroad to Build \$2,000,000 Grain Elevator in St. Louis.....		74
Increase in Petroleum Refining for 1921.....		75

### DEPARTMENTS

The Iron and Steel Situation.....	77	Construction .....	85
Railroads .....	79	Machinery, Proposals and Supplies Wanted	101
Lumber and Building Materials.....	80	New Financial Corporations.....	103
Good Roads and Streets.....	82	New Securities .....	104
Textile .....	83	Trade Literature .....	105
Mechanical .....	84	Industrial News of Interest.....	106

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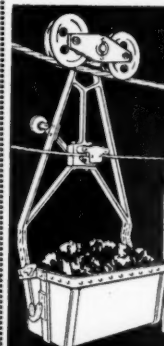
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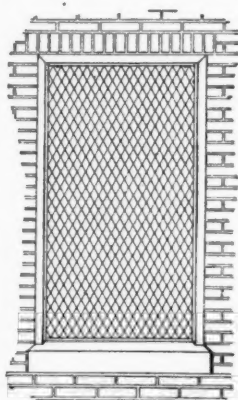
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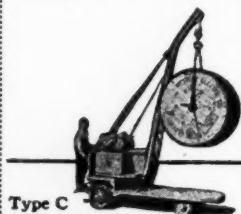
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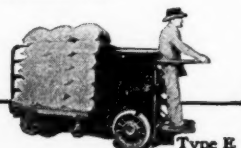
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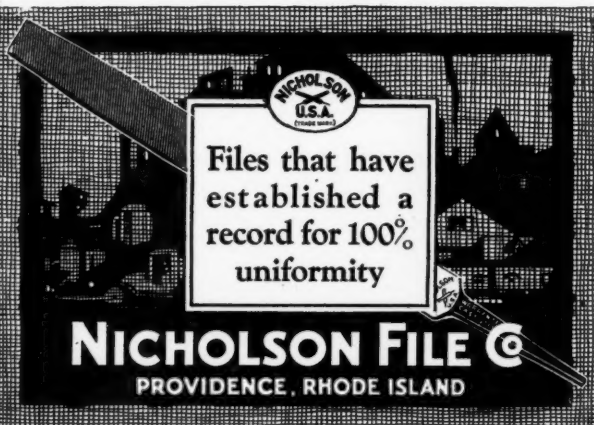


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ANYTHING IN THE MANUFACTURERS RECORD CAN BE REPRINTED BY OTHERS.

Burlington, N. J., March 3, 1923.

Editor Manufacturers Record:

I have just read your article "The Only Safe Foundation For Business and National Safety: A Lay Sermon," in your issue of March 1st and hope you will permit me to say that I most heartily agree with the expressions contained therein.

May I suggest that this article should be printed in leaflet form and given the widest possible distribution? Could you not have a supply printed and furnish same for distribution at a nominal charge? If you could not do that perhaps you would be willing for others to have copies made provided due credit be given the MANUFACTURERS RECORD.

Whether or not you comply with either of these suggestions I hope the article will be very widely read and heeded.

CAREY C. BRANSON.

Referring to the foregoing, we repeat what the MANUFACTURERS RECORD has often said, viz., that full liberty is given to any one to reprint with the usual credit anything which appears in the MANUFACTURERS RECORD. Therefore, if any of our readers want to reprint in any way at all the editorial to which Mr. Branson refers they are at liberty to do so, or any number of copies desired can be had from this office. But those who prefer to have it printed for themselves can do so.

## FLORIDA-MADE SUGAR.

THE MANUFACTURERS RECORD is in receipt of a sample of sugar from the first run of the plant of the Florida Sugar and Food Products Company. The sample received indicates that Florida has at last entered upon a real sugar-making period. Not only Florida but the country at large will watch with great interest the development of this industry by this particular company as well as by others which are projecting sugar-making enterprises in the Everglades.

## From Proceedings of U. S. Senate

SENATOR GOODING—Mr. President, on December 11, 1922, I introduced Senate bill 4148. If this bill could have been passed at this session of Congress it would have given the farmers of this country immediate relief.

Of course, I understood when I introduced this bill that I should be told that Congress should not legislate on railroad rates; that it is impractical, and that a great injustice might be done the railroads of this country. It seems to be all right for the railroads to paralyze the great agricultural interests of the country, but when agriculture asks for relief we immediately hear about the wrecking of the great railroad system of America.

If I had believed that a majority of the Interstate Commerce Commission were in sympathy with and wanted to be fair to the great agricultural interests of the country, then I should not have introduced this bill; but when I investigate the horizontal increases made as the result of the Federal control act and the Esch-Cummins Act, in which, with but one or two exceptions, horizontal increases were made on the agricultural products, the same as on the higher-priced commodities of the country, without any investigation or consideration of what the farm products would bear to carry them to market, or as to how high the rate or how low the rate was originally, or how long the haul or how short the haul I am forced to the conclusion that at least a majority of the Interstate Commerce Commission is without sympathy for the great agricultural interests of this country; for any expert on railroad rates must have understood that such a horizontal increase was unfair and unjust and they should have known that it was criminal, and that the results would be just what they have been—the wrecking of agriculture.

Mr. President, the action of the Interstate Commerce Commission in ordering these horizontal increases was beyond my understanding until I read an article in the MANUFACTURERS RECORD of Baltimore, of February 22, 1923. I will read the headlines of this article, and I am going to ask that it be printed in the RECORD, in 8-point type, following my remarks.

There being no objection, the matter referred to was ordered to be printed in the RECORD in 8-point type.

Mr. McNARY. Mr. President—

The PRESIDING OFFICER (Mr. STERLING in the chair). Does the Senator from Idaho yield to the Senator from Oregon?

Mr. GOODING. I do.

Mr. McNARY. The article referred to by the able Senator from Idaho is a splendid one, and I should like to have it read from the desk.

The PRESIDING OFFICER. Without objection, it is so ordered.

The reading clerk proceeded to read the article. After having read for some time—

Mr. GOODING. Mr. President, I ask that the reading be



discontinued and that the remainder of the article may be printed in the RECORD without reading.

Mr. DIAL. I object. Let us have the whole article read. It is very interesting.

The VICE PRESIDENT. The reading will be continued. The reading clerk continued and concluded the reading of the article.

Mr. STERLING. Mr. President, a parliamentary inquiry.

The VICE PRESIDENT. The Senator will state his parliamentary inquiry.

Mr. STERLING. I inquire whether the reading of this document is bound to continue, or whether a Senator may object to the further reading at the desk under the circumstances?

The VICE PRESIDENT. The reading has been concluded.

Mr. STERLING. I am glad to hear it.

Mr. DIAL. Mr. President, will the Senator from Idaho yield?

Mr. GOODING. I yield.

Mr. DIAL. Mr. President, the article which was being read at the desk was, I thought, much longer than indicated by the reading. I was very much interested in hearing the article read, but if there is any more of it, and if the Senator desires to put it in the RECORD, I shall have no objection.

Mr. GOODING. I am glad the Senator has withdrawn his objection. I ask that it may be printed in the RECORD in 8-point type as an appendix to my remarks.

The VICE PRESIDENT. The article having been read, it goes in the RECORD, anyway.

(See Appendix.)

Mr. GOODING. Mr. President, the article just read embodies a resolution adopted at the meeting therein referred to, which seems to me to be the most remarkable resolution ever passed by any body of men in America. Why bankers who met in this city to deflate credits and to deflate everything else should want to inflate railroad rates is clear beyond my understanding, unless, of course, it was for the purpose stated in the editorial in the MANUFACTURERS RECORD, to deflate the whole country and to destroy its prosperity. God knows that was its effect. No man ever uttered truer words than Governor Harding did when he said on dismissing that body of bankers, "Your work will spread throughout the whole country." A short time after that meeting of May 18, 1920, the bankers of the West were called to Chicago, and the damnable work of this conspiracy of destroying the prosperity of America was spread all over the country.

Will anyone tell me why the bankers, with the Secretary of the Treasury sitting in their midst, should unanimously pass a resolution providing for the appointment of a committee of five to go before the Interstate Commerce Commission and the Shipping Board to ask for increased freight rates? No body of men in America understand, Mr. President, any better than did the men who were present at that meeting that the farmers of this country pay the freight; there is not any doubt about that; and that increase in freight rates meant, of course, a deflation in the price of farm products. That was the purpose of it, and that was the method of following the lines of easiest resistance. Of course, the unorganized agricultural interests broke down, and during the last three years have lost, because of this deflation, something over \$34,000,000,000 in the shrinkage in the value of their land and the value of their products as compared with 1919. Talk about a conspiracy! This country never heard of such damnable work as followed the adoption of the resolution passed at that meeting of the Federal Reserve Board and those who met with them.

Mr. President, this is most important, it seems to me, but I am not going to discuss it any longer, for the editorial discusses the whole problem very fully. I think the people of this country owe a debt of gratitude to the Manufacturers

Record, of Baltimore, for having the courage to publish the story of this conspiracy as it was formed here in this city on May 18, 1920. I offer the resolution which I send to the desk.

Mr. HEFLIN. Mr. President, will the Senator yield?

Mr. GOODING. I yield for a question.

Mr. HEFLIN. Does the Senator recall the fact that some days ago some one on the floor of the Senate said that the country banks were trying to shift the responsibility onto the regional reserve banks, stating that the country banks refused to make loans to the people, and gave as their reason for so doing that the necessary money was denied them by the Federal reserve banks. This conspiracy discloses the fact that they agreed not to make loans to the country banks, and it was agreed that they must get these bankers to meet them face to face and tell them they were not going to get the loans.

Mr. GOODING. The Senator is correct.

This article shows they refused to make loans on notes backed by Government Liberty bonds, to purchase which some people had almost bled, and that through that method they deflated the price of Liberty bonds and forced them on the market. I ask for the reading of the resolution which I send to the desk.

The VICE PRESIDENT. The Secretary will read as requested.

The principal legislative clerk read the resolution (S. Res. 460), as follows:

Whereas it is reported in the MANUFACTURERS RECORD of February 22, 1923, that on May 18, 1920, there was held in Washington a secret meeting of the Federal Reserve Board, the Federal Advisory Council, and the class A directors of the Federal reserve banks; and

Whereas it is reported in the MANUFACTURERS RECORD of February 22, 1923, that the then governor of the Federal Reserve Board, in closing the above-mentioned meeting, said: "I would suggest gentlemen, that you be careful not to give out anything about any discussion of discount rates. That is one thing there ought not to be any previous discussion about, because it disturbs everybody, and if people think rates are going to be advanced, there will be an immediate rush to get into the banks before the rates are put up and the policy of the Reserve Board is that that is one thing we never discuss with a newspaper man. If he comes in and wants to know if the board has considered any rates or is likely to do anything about any rates, some remark is made about the weather or something else and we tell him we can not discuss rates at all. And I think we are all agreed it would be very ill advised to give out any impression that any general overhauling of rates was discussed at this conference. We have discussed the general credit situation and your committee, which has been appointed with plenary powers, will prepare a statement which will be given out to the press to-morrow morning and we will all see what it is. You can go back to your banks and, of course, tell your fellow directors as frankly as you choose what has happened here to-day, but caution them to avoid any premature discussion of rates as such. We have had an exceedingly interesting day, gentlemen. The suggestions which have been made are valuable and we have profited by your views. I wish to express on behalf of the board our appreciation of your coming here and to thank you for the unselfish and loyal interest you have taken in the Federal bank situation throughout the country in giving this matter the careful thought and consideration that you have. And I am sure that the spirit which has manifested itself at this meeting here to-day will spread throughout all the country, to the member and non-member banks, and if it does we can look the future in the face with courage and confidence"; and

Whereas there appears in the MANUFACTURERS RECORD of February 22, 1923, the following statement: "When the press is denied the right to learn for itself what is going on and must accept as law and gospel any prepared report, the public may rest assured that, it is not getting the real facts, and yet such a prepared report was all that the press has heretofore ever been able to secure as to the discussions which took place in that meeting"; and

Whereas there appears in the MANUFACTURERS RECORD of February 22, 1923, the following additional statement: "At the close of the meeting, in which only one day was given to this general discussion of the most tremendous financial problem that this country had ever faced, when days and days might well have been spent in a careful analysis of the situation, the meeting was closed with the statement by Governor Harding, which we have quoted in the opening paragraph, insisting that nothing should be given out by those in attendance in regard to the discussions that had taken place and thus the public was to be kept in dense ignorance, knowing nothing except the official statement issued by the committee, and from which the public and the press could get no information worth having as to what was being done or would be done by Federal reserve banks"; and

Whereas numerous other assertions are made in the MANUFACTURERS RECORD of February 22, 1923, including that the above-mentioned meeting discussed deflation in currency, restriction of credit, breaking down of prices, and higher freight rates, with a view to governing the future administration of the Federal reserve banks by adherence to such policies, and indicating that the conclusions of this meeting were reached in secret and withheld from the public; Therefore, be it

Resolved, That the President is requested to cause an investigation to be made to determine the truth of the above statements,

and, if not, in his judgment, incompatible with the public interests, to report thereon to the Senate.

Mr. GOODING. I ask that the resolution be referred to the Committee on Interstate Commerce.

Mr. HARRISON. Mr. President, does not the Senator want it referred to the Committee on Banking and Currency? It is a matter that relates to the Federal Reserve Board.

Mr. GOODING. All right; then I will ask that it go to that committee.

Mr. HARRISON. I should imagine that would be the proper committee. I do not know. I have no suggestion to make.

Mr. HEFLIN. Why does the Senator ask that the President have the matter investigated? Why not have the resolution changed, so as to provide that a committee from the Senate shall be appointed by the Chair to investigate and report at the next session of Congress?

Mr. GOODING. I think that this conspiracy of May 18, 1920, is of such importance to the American people that it should have the attention of the President, and I want him to investigate it in his own way. I think the President can best investigate the conspiracy of that date, and I believe that he is going to do it. I want to know what influence the special committee that was appointed by this meeting on May 18, 1920, had on the Interstate Commerce Commission in increasing freight rates. I want the President to find out. The country is entitled to know.

The VICE PRESIDENT. The resolution will be referred to the Committee on Banking and Currency.

Mr. GOODING. Mr. President, this resolution explains very fully to me the action of the Interstate Commerce Commission in increasing rates. I hope the President will find out how many bankers who were in that meeting are large owners of railroad stocks in America. If the country can not be protected against a conspiracy of that kind, then we have not much of a government. If the whole country is to be wrecked and ruined by the money changers of America, then God pity this free Government of ours.

I do not know whether the commission acted on the resolution or not; but on August 26, 1920, they made a horizontal increase in all rates as they existed at that time, with one or two exceptions.

The conspiracy of the Federal Reserve Board worked better than they knew. It brought about the greatest crisis this country has ever known. It is not strange that the agricultural interests of the country, unorganized as they are, should be the first to break down; and in the last three years, taking 1919 as a basis, there has been a shrinkage in the value of farm products and farm lands of more than \$34,000,000,000.

It is quite evident that the Federal Reserve Board and the Interstate Commerce Commission understood and knew the easiest lines of resistance. By increasing railroad rates they knew they could paralyze the agricultural interests of the country and bring about the deflation so much desired, regardless of who suffered from their damnable conspiracy.

When we learn of the conspiracy of the Federal Reserve Board and the treatment that the farmers received from the Grain Corporation during the war, in which they forced the farmers of this country to produce wheat far below the actual cost of production, it is not strange that we hear the distressing stories that come from American farms all over this country to-day. Hardships and privations have been the price that the American farmer has been forced to pay for thrift and industry.

Mr. President, I ask leave to have printed in the RECORD part of the President's message of December 8, 1922, in which he advocated a reduction in freight rates on farm products and the basic materials of the country, stating that he had suggested it to the railroad men of the country and the

Interstate Commerce Commission, and that the Interstate Commerce Commission, together with the railroads, refused to make the reduction on the low-priced products.

The VICE PRESIDENT. Without objection, it is so ordered. The matter referred to is as follows:

This transportation problem can not be waved aside. The demand for lowered costs on farm products and basic materials can not be ignored. Rates horizontally increased to meet increased wage outlays during the war inflation, are not easily reduced. When some very moderate wage reductions were effected last summer there was a 10 per cent horizontal reduction in rates. I sought at that time, in a very informal way, to have the railway managers go before the Interstate Commerce Commission and agree to a heavier reduction on farm products and coal and other basic commodities and leave unchanged the freight tariffs, which a very large portion of the traffic was able to bear. Neither the managers nor the commission saw fit to adopt the suggestion, so we have the horizontal reduction too slight to be felt by the higher class cargoes and too little to benefit the heavy tonnage calling most loudly for relief.

Mr. GOODING. Mr. President, it is not strange that the majority of the Interstate Commerce Commission refused to accept the suggestions of the President for a more liberal reduction on agricultural products than the higher-priced products when we are advised that a committee of five was appointed at the meeting of the Federal Reserve Board on May 18, 1920, urging an increase in freight rates.

I find, however, that five members of the Interstate Commerce Commission were willing to place the entire reduction of 10 per cent that was made at that time on farm products and the basic materials of the country, letting the higher-class, higher-priced products carry a heavier burden in freight rates. In justice to five members of the commission, I think I ought to say that.

\* \* \*

After further discussion, the nine-page article on the secrecy enjoined by Governor Harding of the Federal Reserve Board meeting printed in the MANUFACTURERS' RECORD of February 22, was published in full in the Congressional Record.

## IS RUBBER GROWING A COMMERCIAL POSSIBILITY IN FLORIDA?

WHILE the Government is proposing to investigate the possibilities of rubber growing in the Philippine Islands and elsewhere, especial attention should be given to Florida to see if rubber growing on a commercial scale is feasible in that State. Rubber trees are very abundant in Florida yards. They grow with great rapidity. As far north as Daytona, they seem to be very rarely hurt by frost, especially after they get a good start.

The writer has two rubber trees in his Daytona yards, which, for the last two or three years, have been growing so amazingly as to indicate that it is well worth investigation as to whether Florida can be made a rubber-producing State on a large scale. While this investigation should be made by the Government, the rubber consumers of the country could likewise well afford to make practical tests by putting out rubber trees in different sections of the State, and giving them a fair test.

There are some parts of Florida free from any danger of frost, and the growing season is practically twelve months of the year. All vegetation grows rapidly in that State. There is probably no other State in this country offering such opportunities for testing out rubber production.

The use of rubber for automobile tires and other purposes is expanding rapidly, and every possible effort should be made to protect ourselves, for safety in time of war, as well as for profit in time of peace. We should not permit ourselves to depend upon imported rubber, even from our own islands, such as the Philippines, if by any possibility we can produce rubber at home.



## FARM LABOR AT LOW WAGES vs INDUSTRIAL LABOR AT HIGH PRICES.

**T**HERE are some side lights on the question of agricultural products of this country which are beginning to attract more and more attention. One of the leading agricultural editors in the United States, Mr. H. M. Owen, editor of *Farm Stock and Home*, Minneapolis, has recently made an elaborate and extremely interesting address in behalf of "controlled farm production." He takes the ground that the farmer should reduce his crops just as the manufacturer does, to the point where all of his products will be absorbed at a profitable price. He does not think that the farmer is any more justified from the economic point of view or from his individual welfare of producing to the limit of his farm, regardless of the prices or the profit, than would be the manufacturers of the country in running their plants to the full capacity even though they had to sell their products below the cost of manufacturing. We have repeatedly said that this is the position which farmers are likely to take and that farm laborers will demand increased wages and shorter hours under the example and teachings of labor unions, which insist upon an 8 hour day coincident with higher wages.

The farmer has a right to ask why the industrial laborer works 8 hours and he works 14 or 15 hours while the industrial laborer gets 3 or 4 times as much wages as he gets.

Writing from Arizona a careful student of business conditions says: "It is apparent from the bit of history cited that the Cotton Growers Association felt that salvation for them lay in cheap labor. I was severely criticised for stating that the crux of the cotton raising situation would prove to be the harvesting, in a land of high wages, when the cotton-growing agitation started in Arizona. The Fellaheen is the salvation of the Egyptian cotton-grower. The poor peon, working for a pittance, is the basis of profitable cultivation of the wonderful long-staple, crinkly cotton of the Province of Piura, Peru. Of course the negro is the basis of cotton-growing in the South. Unionize labor in the South and cotton-growing could not long survive. I may seem bold to make such positive assertions to you, but I believe you will sustain me."

While a large amount of cotton is raised in the South by white tenants and farmers it is nevertheless true that the negro has been the basis of the cotton growing industry of the South and that the low rate of wages paid to the negro cotton workers has been the basis on which all other farm labor has been measured. The world has been trying to force the South to raise cotton in competition with the most cheaply paid labor in the world, that is the cotton growers in India, Egypt and other countries. The time has long since past when the South should continue to raise cotton except on a basis of full wages for the cotton laborer made possible by a full price to the land owner and the tenant farmer for the price of his product. Otherwise than on this basis cotton growing is a curse to the South rather than a blessing.

An interesting discussion of the question of controlled farm production is given in an address by Mr. C. W. Pugsley, Assistant Secretary of Agriculture, before the Commercial Club of St. Louis, in the course of which he said:

"If factory laborers are able to demand a certain wage they should grant in all fairness the same privilege to farm laborers. The fact that the city laborer does organize and fix his wage, coupled with the fact that the farm laborer is unable to do so is a big factor in maintaining the unbalanced condition. Such a condition tends to keep factory costs and transportation charges up, and force farm prices down.

"The law of supply and demand should control all products of labor and capital. When the manufacturers find that

they are manufacturing more goods of any sort than the public is consuming at a reasonable price they stop manufacturing. They can dismiss their labor, reduce the speed of their machinery, or shut down entirely. Agriculture cannot reduce its output materially except by reducing the number of farmers. That is exactly what is happening today and is the thing which is attracting such wide attention and arousing so much concern. The farmer is quitting his business. From the best estimates available twice as many farmers were leaving the rural districts last summer and moving to the city as was the case in normal times. There are no indications that the movement has slowed up. Such a movement, though regrettable, is inevitable whenever the proper balance does not exist between farm business and city business. Not only is such a movement inevitable but it is a perfectly proper procedure, and under present conditions is the only effective method the farmer has of reducing supplies. Our time should not be spent in bewailing the fact but in bringing about conditions which will restore the balance.

"I do not belong to that group of people who feel that we should have more people in the country than are needed to produce the necessary farm products. There are those who are continually advocating going back to the farm. Unless I am mistaken, too many have gone back to the farm for present conditions. At least the farmers are producing more than the world will take at a reasonable price, and that is the practical test of over or under-production. The present price of agricultural products has ruined thousands of farmers. Ruined, they are leaving the farms. They have started back to town again. The movement back will continue until a proper balance is again attained.

"I would like to have somebody tell me why we should urge people to go to the country if there are enough people there now to do the necessary work. It would be just as foolish to urge clothing factories to produce more clothing than is needed to properly clothe our people. Over-production is waste and should not be encouraged in any industry. It would be much better to employ the surplus labor and capital in the production of those things which may not be necessary, but which are very desirable from the standpoint of living a satisfying life."

## THE NEED OF TRAINING SCHOOLS FOR THE BUILDING TRADES.

**H**OW is the need for apprentices in the building trades to be met? The policy of the unions has been to limit to a greater or less degree every craft in the building industry. For this reason and for other less apparent causes the high school youth of today is evincing no inclination to turn for his life work to the practice of carpentry, of plumbing, working in structural iron or to one of the other trades. There are exceptions, but this is the general rule. If this condition continues for very many years the number of men who are competent to perform these tasks will be so limited that the cost of building construction will be made practically prohibitive for the average family and the present shortage of dwelling houses and certain other structures will be continued indefinitely. In this respect the building interests of the country face an impossible situation.

The subject is discussed in this week's issue of the *MANUFACTURERS RECORD* in a very enlightening manner by Mr. J. B. Landers, Secretary-Manager of the Builders Exchange of Oklahoma City, in the form of a report on the Twelfth Annual meeting of the committee on Labor and Labor Statistics of the National Association of Builders Exchanges. One method of solving the problem to a degree is by the increase in the number of trade schools and by adding to the equipment of these schools and stimulating interest in the work they are attempting to perform.

American industry will require each year an additional quota of skilled laborers and it is a matter of the utmost importance to the country that a way be provided for the training of the large number of young men who desire to work under American conditions on the open shop plan. We commend to our readers a careful study of Mr. Landers' presentation of the facts.



## Heavy Imports of Foreign Goods.

THE November report of the Department of Commerce shows a continued increase in foreign importations, despite the free trade theories of those who said that the new tariff bill would kill off our import business. Our imports for November 1922 exceeded by about \$81,000,000, or 45%, the imports for November, 1921. The total figures were for November, 1922, \$291,905,785 as compared with \$210,948,036 in November, 1921. The heaviest increase amounted to about \$40,000,000 in the importation of crude materials for use in manufacturing and nearly \$26,000,000 in manufactured products for further use in manufacturing.

The imports for 11 months ending with November, 1922 exceeded by \$548,000,000 the imports of the corresponding period for 1921. Coincident with this great increase in imports has been the remarkable expansion in our export trade, as we have shown from week to week, in the MANUFACTURERS RECORD. The totals of the imports for November and for 11 months were as follows:

The imports by countries show a continued heavy increase from Germany, the imports from that country for November being almost double the amount of November, 1921. The figures for all countries for November and for eleven months are extremely interesting:

TOTAL VALUES OF IMPORTS OF MERCHANDISE BY GRAND DIVISIONS AND PRINCIPAL COUNTRIES.				
Grand Divisions:	Imports from		Eleven Months Ended November	
	1921	1922	1921	1922
Europe .....	70,253,970	94,630,443	692,209,105	894,193,212
North America .....	56,317,063	70,946,135	702,980,018	755,647,452
South America .....	26,717,127	39,415,680	268,517,447	319,535,698
Asia .....	51,196,023	76,285,962	541,173,417	748,293,062
Oceania .....	2,149,165	2,836,328	33,218,750	45,552,246
Africa .....	4,314,688	7,791,237	33,553,328	55,832,381
<b>Total .....</b>	<b>210,948,036</b>	<b>291,905,785</b>	<b>2,271,652,065</b>	<b>2,819,054,051</b>
Principal Countries:				
Belgium .....	3,544,511	4,829,484	32,929,057	48,908,113
Denmark .....	587,877	426,538	8,385,450	2,851,053
France .....	13,929,974	12,226,500	130,401,046	131,009,398
Germany .....	5,913,866	10,246,671	72,907,996	106,662,650
Greece in Europe .....	1,193,208	1,962,763	20,713,044	17,174,429
Italy .....	5,604,375	6,766,949	56,896,670	54,959,232
Netherlands .....	4,915,183	6,203,031	42,111,082	58,967,667
Norway .....	892,193	1,927,553	11,875,709	13,043,214
Russia in Europe .....	149	91,047	138,648	189,276
Spain .....	3,710,374	3,831,212	21,658,867	25,151,729
Sweden .....	2,031,512	4,909,788	16,032,903	27,116,839
Switzerland .....	3,429,917	2,911,230	37,290,435	35,921,573
United Kingdom .....	21,887,959	33,722,131	214,170,166	325,887,329
Canada .....	28,767,471	34,694,746	308,731,973	327,044,780
Central America .....	1,865,832	1,665,224	31,649,788	28,999,417
Mexico .....	10,875,563	11,502,072	107,891,478	120,442,738
Cuba .....	13,049,760	20,898,509	219,921,859	253,812,896
Dominican Republic .....	235,807	228,803	14,194,873	4,473,703
Argentina .....	4,803,377	8,528,235	55,618,971	76,057,047
Brazil .....	11,097,117	14,309,481	83,502,314	104,615,050
Chile .....	3,075,913	9,141,475	45,241,327	53,686,565
Columbia .....	4,153,901	2,745,571	39,386,858	33,625,749
Peru .....	1,731,504	1,549,759	13,287,508	14,724,888
Uruguay .....	75,200	1,186,548	11,997,037	14,332,443
Venezuela .....	1,102,262	1,272,306	10,265,857	12,551,205
China .....	5,157,200	12,568,762	93,677,343	123,798,339
British India .....	6,432,591	10,432,641	70,322,908	83,465,337
Straits Settlements .....	6,092,872	5,956,116	51,437,592	82,520,956
Dutch East Indies .....	1,432,938	2,515,817	27,967,478	30,190,479
Japan .....	22,519,155	34,453,896	211,025,475	321,142,250
Philippine Islands .....	4,358,959	4,769,168	46,671,627	56,565,750
Australia .....	1,681,008	1,975,586	21,487,165	33,277,302
New Zealand .....	371,181	606,802	8,966,622	10,025,199
British South Africa .....	238,981	968,309	7,693,772	6,923,009
Egypt .....	3,594,707	4,140,681	15,952,420	28,578,943

## MARKED BUSINESS REVIVAL IN EVERY DIRECTION.

THE First National Bank of Boston in its circular financial letter of February 15, referring to business conditions, says:

"Meanwhile production is on a vast scale, and this very activity is pushing into the background the opinion, formerly prevalent, that this country could have no prosperity until the European situation had been cleared up."

It is true that that opinion prevailed in many circles, but the MANUFACTURERS RECORD has always taken a directly opposite view and has said that this country could be prosperous even without depending upon foreign trade. Foreign trade is desirable; it broadens the nation's activities, but 48 different countries are trading with each other in this country. They are called states, but as far as trade is concerned they might be called countries, and we repeat what we have often said that there is as much profit to be gained by New York trading with California, for instance, as by New York trading with Canada. There is as much profit, for instance, in Alabama selling iron and steel to Georgia or Texas or New England as there would be in Alabama selling iron or steel to India, China or Europe.

Let us not, therefore, make the mistake which so many

made in thinking that there could be no prosperity for the United States until Europe was completely on its feet. In some lines of industry or agriculture foreign trade is for the time being essential. Our cotton growers need a foreign outlet for a considerable portion of their product, as do our wheat and corn raisers. But the time is rapidly coming when a foreign market will be less and less important for our cotton, wheat or corn. The growth of the cotton manufacturing interests in this country is rapidly absorbing an ever increasing percentage of American grown cotton. The time may come when we shall have no cotton to spare—except in the form of finished goods—to Europe or to other countries. The time is probably not far distant when every bushel of wheat raised in the United States will be needed at home and when Europe will have to look to other countries than the United States for its wheat supply, unless cotton and wheat can be sold abroad at a price that yields a good profit to the growers.

Every ounce of energy, brain or muscle power, and every dollar, put into the growing of these crops in excess of our own needs will become a source of national loss rather than a national gain. If the individual grower does not get a profit out of his work; for in that case the nation is the poorer for having produced those things for foreign con-

sumption which the buyer gets at less than the cost of production to us.

In commenting on the increasing activities in business Bradstreet says:

"Industry is still active, taking on a faster pace, indeed, in some areas, as for instance where weather conditions permit of building, and prospects for marked spring activity crystallize into actual happenings."

The Financial Chronicle discussing the marked improvement in business, which this paper predicted from the day the policy of drastic deflation was overturned would instantly begin, has the following:

"Spurred by the rising needs of the country, business in the United States is steadily expanding. All the big industries are humming with life. The great commodity markets are rising, stimulated by a keen demand. Prices for grain, cotton, coffee and sugar, not to mention such basic commodities as iron and steel are all higher than a week ago. In steel the demand outruns the production, although this is steadily increasing. The pig iron output is mounting under the whip of an imperative demand, all the greater because of the trouble in the Ruhr Valley, which precludes the possibility of American consumers receiving iron from France or Germany, although foreign iron at one time competed quite seriously with American in our own markets. Building is on a remarkable scale. Great activity in the business in lumber, brick, cement, paints and hardware is a natural non-comitant of this extraordinary state of affairs. The demand for structural steel and iron is something noteworthy in the history of the trade. Purchases of agricultural implements are also a telling feature. Railroads are buying material on a large scale. There is no tendency to buy too far ahead; that is to say, not beyond June or July at the most."

### BOLL WEEVIL EXTERMINATOR THAT IS REPORTED TO HAVE PROVED EFFECTIVE.

Laurens, S. C., March 8.

*Editor Manufacturers Record:*

Here's a million dollar boll weevil proposition: calcium arsenate, molasses, water, cotton seed meal, a handful of meal to a gallon of mixture.

Boll weevils love cotton seed meal, and when the arsenate is left out will "fatten" on it. This "mixture" has been tried out by an humble clodhopper—and proves very effective in killing the boll weevils. It may be worth a few hundred million dollars to the South. However, if any one cares to experiment with this "mixture," the information is free to the world, for the good of the cotton industry of the world. The cost will not be anything to test out. So here's the information for what it is worth. If you think well of it, you may spread the glad tidings to the world. This information comes to me from an humble farmer who wears his "derby hat" on the back of his head, yet he made good with this mixture in 1922 cotton crop, so he states.

J. C. BURNS.

### SUGGESTIONS FOR FURNITURE FACTORIES IN FLORIDA.

IN a letter to the MANUFACTURERS RECORD, Mr. S. H. Gaitskill, of McIntosh, Fla., a breeder of high grade stock, says:

"For years all furniture factories were located at Grand Rapids, Mich. Now many are in North Carolina. I have wondered why some one has not sought out the hardwood sections of Florida. The market for the finished product is here; transportation is good; railroads running through bodies of oak, hickory, ash, red gum, magnolia and other hardwoods. There are splendid locations as I see it for furniture factories, especially chair factories. Oak, gum and magnolia trees two or three feet in diameter, and good swamp pine three feet in diameter, 70 feet to a limb, all growing on good rich land, naturally well drained, and can be bought at \$50.00 per acre. Yet it lies untouched. Some day some stray sheep will leave the flock and find this good pasture."

### SMALLEST STOCK OF GRAIN ON FARMS IN THREE YEARS.

ACCORDING to the Agricultural Department, the combined stocks of corn, wheat and oats, on farms, March 1, 1923, was 1,662,057,000 bushels, compared with 1,851,746,000 bushels on farms March 1, 1922, and 2,465,629,000 bushels in 1921. The stock of these three grains on farms, March 1, 1923, was less by 189,689,000 bushels or 10 per cent than the quantity on farms, March 1, 1922, and 803,571,000 bushels, or 32 per cent less than the stock on farms in 1921.

The amount of corn on farms March 1, 1923, was about 1,087,412,000 bushels or 37.6 per cent of the 1922 crop, against 1,305,559,000 bushels or 42.5 per cent of the 1921 crop on farms March 1, 1922; the 10 years average 1911 to 1920 is 36.6 per cent. About 17.8 per cent of the crop will be shipped out of the counties where grown, against 19.2 per cent of the 1921 crop; the 10-year average is 19.1 per cent.

The amount of corn on farms in the Southern States, March 1, 1923, was 354,445,000 bushels compared with 444,997,000 bushels March 1, 1922.

The amount of wheat on farms March 1, 1923, was about 153,134,000 bushels or 17.9 per cent of the 1922 crop, against 134,253,000 bushels or 16.5 per cent of the 1921 crop on farms March 1, 1922; the 10-year average is 19.2 per cent. About 67.1 per cent of the crop will be shipped out of the counties where grown, against 61.7 per cent of the 1921 crop; the 10-year average is 57.7 per cent.

The amount of wheat on farms of eight Southern States, March 1, 1923, was 15,697,000 bushels compared with 18,471,000 bushels in 1922.

The amount of oats on farms March 1, 1923, was about 421,511,000 bushels or 34.7 per cent of the 1922 crop, against 411,934,000 bushels or 38.2 per cent of the 1921 crop on farms March 1, 1922; the 10-year average is 36.3 per cent. About 25.1 per cent of the crop will be shipped out of the counties where grown, against 23.9 per cent of the 1921 crop; the 10-year average is 29.1 per cent.

The amount of oats on farms of Missouri, Texas, and Oklahoma March 1, 1923, was 14,663,000 bushels compared with 33,940,000 bushels March 1, 1922.

United States price comparisons for March 1 are corn, 74.3 this year, 54.8 last year, average of 121.8 for 1916-20 and 62.4 for 1911-15; wheat 105.1 this year, 116.9 last year, average 180.9 for 1916-20 and 94.7 for 1911-15; oats 43.1 this year, 36.6 last year, average 66.6 for 1916-20 and 41.3 for 1911-15; barley 57.4 this year, 49.6 last year, average 106.5 for 1916-20 and 64.4 for 1911-15.

### FOR FRANCE.

RUSS DANIEL of Beaumont, Tex., writes:

"I'm glad to see you give the Germans—and back France. You are right and I believe the masses are with you—regardless of our Government's desertion and England's."

"There would have been no need to go into Germany, if England and America had been honest with France. Germany will pay nothing and do nothing unless forced. Neither we nor England protested when Germany held a loaded gun over France to collect her debt imposed on France. It seems a crime, ours and England's position. Why not roast both?"

We have already expressed our opinion in regard to the blunder made by this country as well as Great Britain in not standing by France. If we had done our duty our soldiers would still be on guard in Germany, and England would not have for selfish reasons withdrawn its active support from France in the effort to collect the reparation bill which was but a small amount to represent the damages caused by Germany in its hell-born war against France and its civilization.



## LOWER RATES OF INTEREST TO AGRICULTURE AND LONGER CREDITS ESSENTIAL TO NATIONAL PROSPERITY.

FROM the beginning of the agricultural interests in this country, interest rates have been too high. The wealth of farming has been drained from the farms to the money-lenders and to financial centres. Every bushel of grain, every bale of cotton, every head of livestock has paid too high a toll to the moneylending fraternity of the country, and the farmer has had to bear the brunt of the situation. Our entire financial interests have been for the benefit of the banking or moneylending interests rather than for the benefit of the producing interests of the country. The banking interests have reaped a harvest through bad times as well as good times, regardless of whether the real wealth creating interests of the country—agriculture and manufactures—prospered or not.

This makes the producing interests subservient to the money interests, whereas the money or banking interests of any country should be subservient to the producing interests. One produces the wealth, the other provides the facilities for handling it and taking a heavy toll whether the producer is making or losing on what he sells.

After much wrangling and a vigorous fight on the part of many who have not appreciated the need of reducing the cost of money to the farmers, Congress has passed a bill which is one step toward a recognition by the Federal Government of the need of providing longer credits and lower interest rates to agriculture. In a resume of this bill and its probable effect Secretary of Agriculture Henry C. Wallace says:

"On the last day it was in session Congress enacted the Agricultural Credits Act. This act is designed to give the farmer the sort of credit he needs to produce efficiently and market in an orderly way the products of the farm. It is an effort by Congress to meet a need which has been felt for at least fifty years. The act may not be perfect. Quite possibly experience will show the need of amendments from time to time. But it furnishes the basis for a system of intermediate credit adapted to farm conditions and farm needs. Also it should bring about a reduction in the interest which farmers must pay for money borrowed.

"The act is divided into two parts. In the first, it provides government agencies for handling agricultural loans. In the second it authorizes the organization of private agencies under government supervision for making loans on livestock security and on farm commodities on the way to market.

"The government loan activities will be carried on in connection with the Federal land banks. At the present time the country is divided into twelve districts, and in each of these districts there is a Federal land bank which makes land mortgage loans, these twelve banks being directed by a central Federal Farm Loan Bureau in Washington. In connection with each of these land banks there is to be established an intermediate credit bank, located in the same city with the land bank and under the supervision of the officers and directors of the land bank. The Federal government supplies each of these intermediate credit banks with a capital of not to exceed \$5,000,000. These intermediate credit banks are authorized to discount farmers' notes which have been taken by banks and other financial institutions, and then can carry such notes for a term of from six months to three years. The banks may also loan direct to farmers' co-operative associations under conditions set forth in the act.

"These intermediate credit banks may issue debentures which will have back of them the farmers' notes which the banks have taken. The idea is that these debentures may be sold to people who wish a safe investment. They are exempt from taxation, just as the bonds issued by the Federal land banks are exempt. The interest charged by the intermediate credit banks may not exceed by more than one per cent the interest paid on the debentures issued, and the farmer who borrows must not be charged an interest rate of more than one and one-half per cent above the interest charged by the intermediate credit bank.

"No doubt some time will be required to get this machinery in smooth working order. It will be just like building up a new business. It should not be very long, how-

ever, until the benefits will be apparent and the farmer will find that he can borrow needed capital for a period up to three years without having to pay an unduly high interest rate, without having to renew his notes every ninety days or six months, and without being in danger of having to sacrifice his crops or live stock because of a sudden financial flurry.

"The second division of the act authorizes the organization, under a Federal charter, of national agricultural credit corporations, these to be organized by private capital. They will be under the supervision of the Comptroller of the Currency, just as are other national banking institutions. They must have a capital stock of at least \$250,000. They may issue collateral trust debentures up to ten times their capital and surplus. Such corporations will probably be organized in the Western States where the live-stock industry is important and where now cattle loan companies are in operation.

"In addition to the provisions of the act designed to furnish the farmer much needed intermediate credit, certain changes have been made in the law under which the Federal land banks operate and in the Federal Reserve Act. Provision for the establishment of the so-called permanent organization of the twelve Federal land banks is made by providing that three out of the seven directors for each bank are to be elected by the borrowers from the bank and three are to be appointed by the Federal Farm Loan Bureau. The seventh director, who will be the president of the board, will be chosen from three persons who have received the highest nomination vote for this position by the borrowers or stockholders in the bank.

"Heretofore the maximum amount which might be loaned to any individual by the Federal land banks has been \$10,000. This has been increased to \$25,000. Also the purpose for which mortgage loans may be made has been broadened to include the repayment of any existing indebtedness.

"The Federal Reserve Act is amended by broadening the definition of what is called agricultural paper, making it include the grading and processing of agricultural products by co-operative marketing associations. Heretofore the Federal Reserve Banks have not been permitted to discount agricultural paper for a longer period than six months. This period has been increased to nine months.

"A large number of state banks are not now members of the Federal Reserve System, some of them because their capital is not large enough to meet the requirements of the law. An Amendment to the Federal Reserve Act is carried in this bill designed to encourage small banks to join the system. A bank which has capital equal only to sixty per cent of the capital required of national banks may now be admitted, if within a reasonable time the capital will be increased to correspond with the capital required of national banks.

"The life of the War Finance Corporation is extended up to February 29, 1924, the expectation being that by that date the new credit facilities provided for under this agricultural credits act will be sufficient to meet the needs.

"This Agricultural Credits Act of 1923 is one of the most important acts passed by the last Congress. It marks an earnest effort to provide the farmer with the sort of credit he must have to carry on efficiently. It is not class legislation. The results will be helpful to business in general, because the effect will be to stabilize agricultural production and marketing."

## THE DISGRACE OF MARYLAND'S RACE TRACK GAMBLERS.

Lawrence S. Holt & Sons,  
Proprietors.

Aurora Cotton Mills,  
Burlington, N. C.

Gem Cotton Mills,  
Gibsonville, N. C.

Burlington, N. C., January 27.

Editor Manufacturers Record:

I wish to heartily commend you for your editorial on "Sad Disgrace of Maryland Which Sells Its Honor to Racetrack Gamblers," in your issue of January 25.

During the last few months I have spent quite a little time in Baltimore while the racing season was in progress, and had an opportunity to see some of the results at close range. I do not see how any person who approves of law



and order and good citizenship, can in any way justify a state selling privileges to debauch its people, regardless of the amount of money such privileges will bring. I should rather say that it would be a very profitable investment for the state of Maryland to spend \$673,000 to keep racing and gambling out of the state, rather than to receive that amount for permitting it.

I was a resident of Norfolk during the years 1911, 1912 and 1913, and at that time there was racing twice a year at the Jamestown track. During the racing season the whole character of the town was changed and an observing person could notice it on the streets, in the hotels, cafes, stores, and also on the railroad and steamboat lines, to and from Norfolk. It is impossible to estimate the amount of harm done by an assemblage of men and women who follow the racing around, and for a great state not only to permit, but to encourage this great menace to its morality and integrity, must be very sad and discouraging to the better class of its citizens.

LAWRENCE S. HOLT, JR.

### FRENCH ENTIRELY QUALIFIED FOR ADMINISTERING THE RUHR.

Pure Propaganda Seen in Contrary Reports—Perfidy of Germans in Efforts to Evade Reparations Payments.

Washington, D. C., March 1.

*Editor Manufacturers Record:*

I have read with interest and appreciation Mr. R. M. Bryan's remarks in your March 1 issue. Mr Bryan is entirely right in the stand that he takes and his observations as to propaganda, etc., are entirely in accord with my own observations.

The question continually raised at present is whether the French are capable of operating the Ruhr District, with its complication of refined mechanical equipment; and arguments on this subject are perhaps the most insidious that France has to combat.

As you know, it fell to my lot to make the appraisal of the damages to the Nord et Pas de Calais, and I had abundant opportunity to compare the character of the French industries with those now in operation in the Ruhr.

In the first place, if there was any spot on earth where German efficiency and mechanical knowledge had been eclipsed it was in the Northern part of France; and not only this but the results of their scientific mining of coal and fabricating of steel was in direct competition with the output of the Ruhr. The primary reason for the destruction of the French coal mines and steel works was to remove this formidable and dreaded rival of the Ruhr industries.

The coal and steel operators of Northern France, having been deprived of their plants and equipment by the wanton destruction by the Germans, will find no difficulty in operating the most complicated German equipment which they are liable to encounter in the Ruhr; and it is because Germany thoroughly appreciates this fact that the French occupation of the Ruhr is bound to be so effective.

If England or these United States had occupied this German territory, there might be some question as to their ability to operate successfully, at least within a reasonable length of time, but in the case of the French, they find themselves called upon to operate mines of exactly similar type to those they formerly operated in their own country, with deep pitch seams—in fact, the coal measures of the Ruhr are a continuation of the Northern France coal fields, which also runs across Belgium.

Therefore, the French forces occupying the Ruhr, so far from finding themselves at a loss as to how to handle this

equipment, must of necessity find themselves thoroughly at home with every piece of machinery and every problem of the use thereof.

As before mentioned, Germany has always dreaded the competition of Northern France and it is nothing less than poetic justice that the French themselves should have taken over the Ruhr and be operating it for their own purpose since Germany had previously destroyed similar industries in Northern France for the sole reason of wiping out a business competitor.

With regard to the depreciation of the mark, Mr. Bryan is right in referring to it as a colossal swindle by which is effected the paying off of their own employees in paper money, and the pocketing the gold which they receive for the finished product, and which they take good care is banked outside their country.

To be sure the working population and those that subsist on fixed incomes in Germany are in dire straits of poverty, but it is equally true that certain groups of capitalists have waxed fabulously rich since the war.

This condition, however, is in no wise due to the payments of reparations, but is entirely due to the fact that these capitalistic groups have cornered the gold supply and pay their men in paper currency of practically no redemption value.

Germany is today amply able to pay all her obligations, but she must first make those that are hoarding the gold disgorge, and not look to the poorer classes and laborers (who never see a piece of gold) to bear the burden.

The real enemies of Germany are German citizens, and it is to them and them alone that the suffering in Germany is in reality due.

GODFREY M. S. TAIT.

### Doing a Lasting Good for Law and Order.

Ott & Johnson, Lawyers and Notaries.

Franklinton, La.

*Editor Manufacturers Record:*

I thank you sincerely for the copy of "The Prohibition Question Viewed From the Economic and Moral Standpoint." I secured and distributed several copies of this publication when it came out, but at the time failed to retain a copy for my own library. I am very glad to get the copy you sent me which contains considerable additional matter.

The attitude of some of the great daily papers and some of the periodical publications toward the prohibition question in this country is to my mind a very alarming thing. The encouragement and support which they are lending to law violation is beyond excuse, and I believe that publications like the MANUFACTURERS RECORD could do a lasting service by calling attention to this situation from time to time.

My interest in the question has been life-long, and being a member of the Legislature of this state for sixteen years, first in the House and now in the Senate, of which I am President Pro-tempore, I have studied it from the Legislative standpoint. I am convinced that it is the most progressive, forward looking step in self government ever undertaken since the adoption of the United States Constitution.

DELOS R. JOHNSON.

### Mapping the National Forests.

Of the 181,799,997 acres included within the boundaries of the national forests, 20 per cent is accurately mapped and 56 per cent has been covered by rough reconnaissance, says the annual report of the Forest Service, of the Agricultural Department. On about 24 per cent no mapping work has been done.

## 4,000,000 Peach Trees, All in Bloom, Bring Spring-time Glory to Sandhills of North Carolina.

REMARKABLE DEVELOPMENT OF FRUIT INDUSTRY ACCOMPANIES CREATION OF NATIONALLY IMPORTANT HEALTH RESORT AT PINEHURST-SOUTHERN PINES.

By ALBERT PHENIS.

Southern Pines, N. C., March 12.

When the four million peach trees that grow around here are all aglow with the blush-tints of blossom-time, a spring day glory comes to this Sandhill section of North Carolina that makes of it a veritable land of enchantment. The flowering time of the peach trees has now become an event of community interest, viewed with something akin to the national pride and sentiment with which the Japanese people hail their annual cherry blossom festival, and it has come to be an added attraction for the thousands of visitors who spend their winters here and even for those who may be passing through and who arrange to tarry awhile, to breathe in the beauty and the fragrance of the extraordinary spectacle.

The peach trees and the tourists began almost simultaneously to sense the hospitable nature of this Sandhill clime, for whereas it was some 25 years ago that the development started which has made of Southern Pines and Pinehurst the greatest winter resort in the Eastern part of the nation, outside of Florida, it was in 1895 that the first peach orchard was planted here in an experimental way by a Guilford county horticulturist of long experience and achievement, named J. Van Lindley. The Sandhill section, a ridge about 150 miles long by an average depth of ten miles, had been chiefly noted for its lumbering operations, and when the long leaf pine had been well cut off, the sandy slopes were counted of little value. Van Lindley's experiment was generally derided, just as was the first venture made by the late John T. Patrick to create a winter resort in the desolate, thinly-populated and seemingly barren region in which he located Southern Pines.

There is sunshine and a genial atmosphere in the Sandhill section, however, and with a warm soil the peach trees thrived, and the first venturesome tourists were charmed with the dry, clear air and the many days of sunshine at a time of the year when but a few hours away there are leaden skies, a chill in the air and ground covered with snow.

So the tourists began to build homes, some of them of palatial mold, and great hotels were provided, so that people now come here from all parts of the country to spend the winter months and many tourists stop here both on their downward trip and on their way home from Florida and other points further south.

And the peach industry has wonderfully prospered, so that 40,000 acres are now covered by orchards, and the area is being increased all the time, as witness a planting of some 500,000 additional trees for the present season. The Sandhill Fruit Growers' Exchange, with headquarters in a substantial building at Aberdeen, markets the crop on a co-operative plan. The first distinctive peach show ever held originated at Hamlet, and to this annual peach harvest visitors now come from practically every state in the eastern half of the Union. Sandhill peaches are now marketed throughout the country, in a volume which has grown from 43 car loads in 1918 to 1252 in 1922, and it is estimated that approximately 2100 car loads will be shipped in 1923.

Experiments in the culture of other fruits have proved so successful that dewberries have become an important crop, and what is said to be the largest dewberry vineyard in the country is located near Hamlet. In 1922 there were

shipments of dewberries from the Sandhill section amounting to 336 car loads. Grapes, strawberries, raspberries, cherries, all do well, and asparagus and pimentos are also successfully grown. In fact, almost every new experiment in fruits or vegetables scores a new success.

While the fame of the Sandhills section is based on the remarkable resort development that has occurred it is manifest, therefore, that the industrial development, especially along the lines of fruits and vegetables, is destined to become a feature of great and continually growing importance.

When John T. Patrick began the attempt to establish a health resort at Southern Pines he was able to buy all the land he wanted at 50 cents an acre or less. Progress at first was slow, but in recent years a number of wealthy residents of Northern cities have built their homes here, some of them expending as much as \$100,000 on house and grounds, which they occupy only three months in the year.

The investment by the Tufts in 1895 in a 5000 acre tract of cut-over lands owned by the Pages was an event of importance in the history of this section, both on account of its advertisement of the section and through the developments subsequently made. Henry W. Tufts of Boston came here in an incidental way and was impressed with the healthfulness of the section. The Page family had been long engaged in lumbering and were glad enough to sell some of their denuded holdings, at less than \$1 an acre. On the death of the elder Tufts his son took active charge, and the development of Pinehurst was greatly accelerated. Here is the imposing Carolina inn and many beautiful homes, including the one to which Walker Hines Page, ambassador to Great Britain, came in his fatal illness, in the desire to spend his last hours amid the scenes of his boyhood.

The Tufts interests acquired 2000 additional acres adjacent to their original holdings, and on this tract is the Mid-Pines Club, fostered by the Tufts, unique in its spaciousness, appointments and furnishings, and for its plan of membership of the house, club, gymnasium and grounds, which has one of the seven 18-hole golf courses located within a five mile radius of Pinehurst-Southern Pines.

The latter-day Southern Pines began its growth with the construction by Creamer & Turner of the Highland Pines Inn, on Weymouth Heights in 1912. On an elevated ridge, commanding an inspiring view of far-reaching hills and vales, in a pleasing setting of evergreen vines and trees and shrubs, the Highland Pines, with its colonial pillars and broad verandas, is an invitation, by its very appearance, to the visitor seeking "mine ease in mine inn." From the beginning the Highland Pines has steadily increased in potency as a drawing magnet, until now not only are its 250 rooms constantly filled throughout the season but in addition the several cottages built by Creamer & Turner on the hotel grounds are also occupied, as are likewise the numerous other hotels that have been built at Southern Pines. And yet thousands of tourists are at the height of the season turned away because of the lack of accommodations.

All around Southern Pines are beautiful winter homes, to the number of nearly three hundred, that have been built by Northern people, practically within the past ten years, and it is a noteworthy fact that hardly one of these homes



has been unoccupied by the owner in any one of these ten years.

Southern Pines itself has been completely transformed. There are new business blocks of fireproof construction; there is a public library, commodious modern school buildings, churches of the various denominations, new state roads and well paved city streets. There is a permanent population in Southern Pines of about 1200, and in Pinehurst of half that number. During the season 3500 or more are added. In hotels, homes, grounds, club houses, golf courses, etc., some \$8,000,000 has been expended in the Pinehurst-Southern Pines section in the past 10 years. In few other places has so much been done as here to provide comfort and entertainment for those who seek recreation and health in the open. The conveniences in the hotels and club houses are of the highest standard, and the sports include not only games—golf, tennis, etc.—but horseback riding is much indulged in, a race course stages contests of various kinds throughout

the season, and in the Highland Pines and other hotels there are nightly dances and indoor amusements, and on Sunday evenings sacred concerts.

Altogether the development here is of remarkable character and extent. The Pinehurst-Southern Pines section has become the greatest winter golf center in the country, and is continually gaining in prestige as a place of winter residence, and also it is becoming more greatly appreciated year by year for its advantageous location, exactly half way between Florida and New York. The Florida tourist travel has increased enormously in recent years. Southern Pines and Pinehurst furnish a highly desirable stopping place for those who leave Florida in March and April. They are thus afforded the opportunity of breaking the transition from the warmth of Florida in the spring to the chilliness of the North, and at this time especially the Sandhill section is a bower of beauty and a haven of delight.

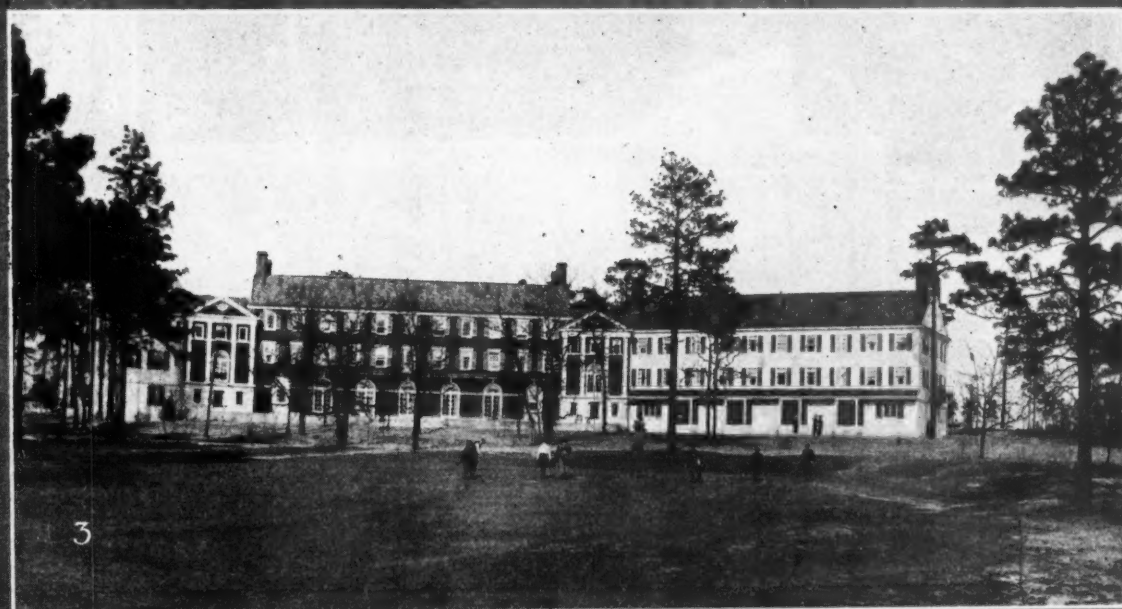


1. Fruit Growers' Exchange Bldg., Aberdeen, N. C.

2. Peach Packing Operations at Southern Pines, N. C.

3. Typical Peach Orchard at Harvest Time. Sandhill Section of North Carolina.





1. The Carolina, Pinehurst, N. C. 2. Highland Pines Inn, Southern Pines, N. C. 3. Mid-Pines Club, Pinehurst, N. C.



1. Home of Mrs. A. F. L. Dull, Southern Pines, N. C.



2. "Thistle Dhu," the Pinehurst home of Mr. James Barber, of New York.

3. Winter Home, James Boyd Estate, Southern Pines, N. C.





# The Problem of New Recruits for the Building Trades.

WHAT IS THE BEST METHOD OF AROUSING AND MAINTAINING THE INTEREST OF AMERICAN BOYS IN LEARNING THE SKILLED TRADES?—EVIDENT THAT OPEN SHOP PLAN MUST PREVAIL IF RIGHT MATERIAL IS SECURED IN SUFFICIENT QUANTITY TO MEET GROWING DEMANDS.

[In sending us the following interesting and important report, Mr. J. B. Landers, Secretary-Manager, Builders Exchange of Oklahoma City, Okla., writes: "Being a regular subscriber to the Manufacturers Record and knowing the interest you take in the American Plan Open Shop, also having read your articles on immigration, I wish to state that I have most heartily coincided with your views as expressed on these matters. I am enclosing copy of the Twelfth Annual Report on Labor and Labor Statistics of the National Association of Builders Exchanges in convention in Des Moines, Iowa, the week of February 12. The report is compiled from an absolutely unprejudiced and unbiased viewpoint, verified by statistics and statements which cannot be truthfully contradicted, and in making up the report I have conformed with the information received on this matter. The statement in reference to immigration is more or less of a personal opinion but it is a fact nevertheless." The facts and figures and the conclusions reached in this report are of great significance and should be carefully studied in order that business interests everywhere throughout the country may arrive at some proper conclusion on a suitable method of relieving the shortage in the skilled trades.—Editor Manufacturers Record.]

By J. B. LANDERS, Manager, Builders Exchange of Oklahoma.

Forty eight organizations who are members of the National Association of Builders Exchanges, representing cities from all sections of the United States, reporting wage scales in the building trades in January and December, 1922, show an average in ten trades, as follows:

	Average Wage Scale	
	January 1922	December 1922
Carpenters .....	.87¾	.87¾
Electricians .....	.92½	.94
Painters and Paper Hangers .....	.84½	.84½
Plasterers .....	1.06	1.14
Masons, Brick and Stone .....	1.07½	1.16
Plumbers .....	1.01	1.01
Sheet Metal Workers .....	.90	.90
Structural Steel .....	.96	.97
Roofers .....	.84½	.86
Hodcarriers .....	.61	.66

The average wage scale from rates reported through private investigation by 131 cities, from all states in the Union, and representing cities of all classes, as of December, 1922, follows:

	.91
Carpenters .....	.93½
Electricians .....	.88
Painters and Paper Hangers .....	1.06
Plasterers .....	1.16
Masons, Brick and Stone .....	1.03
Plumbers .....	.90
Sheet Metal Workers .....	.....
Structural Steel .....	.....
Roofers .....	.....
Hodcarriers .....	.60

The year has shown a gradual upward tendency. In some localities little or no regard has been paid to the prevailing wage scales. In some instances mechanics are drawing as much as 50 per cent to 75 per cent above the scale due to the rapidly increasing shortage of mechanics in the building trades as shown by the following table, based on the 14th U. S. Census, 1920:

## COMPARATIVE STATEMENT OF PERSONS ENGAGED IN TEN CRAFTS IN THE BUILDING TRADES FROM 1910 TO 1920.

	1910	1920	1922	12 years	Average in decrease per year
Brick and Stone Masons	169,402	131,264	123,638	45,764	3813
Apprentices .....	2,503	1,434	1,222	1,381	

Note: The number of apprentices annually entering this trade decreased over a like period, 1381, leaving only 1222 mechanics to take the place of 3813—which condition will become more acute with the ageing of the craftsmen at present engaged, while the number of apprentices grows less.

Painters .....	273,442	248,497	243,509	29,932	2494
Apprentices .....	2,662	1,616	1,408		1408
Annual loss to craft .....					2494
Apprentices .....					1408
Annual net loss .....					1086
Paper Hangers .....	25,577	18,646	17,380	8,197	683
Apprentices .....	444	172	118		683
Annual loss to craft .....					118
Apprentices .....					118
Annual net loss .....					565

Plasterers .....	47,682	38,255	36,371	11,311	942
Apprentices .....	699	398	344		942
Annual loss to craft .....					344
Apprentices .....					344
Annual net loss .....					598

Roofers and Slaters .....	14,078	11,378	10,838	3,240	253
Apprentices .....	304	250	240		253
Annual loss to craft .....					240
Apprentices .....					240
Annual net loss .....					13

All 1922 figures estimated at proportionate rate of decrease for 10 year period between 1910-1920.

Four trades of the ten treated, show an increase in the number of persons engaged with the number of apprentices decreasing, with one exception. The electricians show an increase in the number entering the trade. (1922 figures estimated at proportionate rate of increase and decrease for 10 year period from 1910 to 1920.)

	1910	1920	1922	Increase in 12 years
Carpenters .....	817,120	887,379	901,429	84,309
Electricians .....	120,241	212,964	231,508	111,267
Plumbers .....	148,304	206,718	218,300	69,996
Structural				
Iron Workers .....	11,427	18,836	20,316	8,889
Tinsmiths and Sheet Metal Workers .....	56,423	69,735	72,397	15,974
Carpenter—Apprentices	6,069	4,805	4,553	1,516-Der
Plumber—Apprentices	9,903	7,386	6,884	3,019-Der
Electrician—Apprentices .....	2,661	9,562	10,982	8,322

Note: Authentic figures on sheet metal and structural iron worker apprentices not available.

Generally speaking, the year just closed witnessed an acute situation and in numbers of instances the situation has become serious. With the depletion in the ranks of mechanics increasing at a rapid rate, and far too few apprentices entering the trades to fill the places of those dropping out because of age and other reasons, we have witnessed more than usual the unreasonable demands upon those engaged in the industry.

The decrease of men engaged in these trades is attributable to various reasons. First: The apprentice rules of the unions. We find apprenticeship limited, more or less, in every craft in the building industry, and in some cases where apprentices are engaged, the older men are not taking an interest in the apprentice or assisting in his mastery of his chosen occupation.

From a careful survey of the public schools and from personal interviews with students leaving high school, it is evident that the American youth of today has no inclination to enter into the trades under the requirements demanded of him in most localities—that he obligate himself to abide by arbitrary rulings and subject himself to fines and dues



for the privilege of selecting and following the trade or occupation of his personal choice. In this connection it is a fact that to a greater or less extent, in some localities, contractors actively engaged in the industry are aiding in maintaining and in some instances going out of the way to secure an opportunity to enter into agreements with labor leaders and organizations which are gradually depleting the ranks of skilled mechanics to the alarming extent that if the present rate of decrease of skilled mechanics is continued, in a few years the cost of building operations will be so great that it will be impossible for the man of moderate means to build himself a home in which to live.

It is to be deplored that we have contractors today engaged in the industry who, from all indications, are using the labor organizations for the purpose of driving out competition through private and individual agreements with the labor organizers whose strength depends upon the scarcity of mechanics. The American public and the legitimate interest of the building industry condemn this method of operation.

This investigation has covered all sections of the country, in cities of all classes, with results showing conditions growing out of the labor situation to be the most serious problem confronting the industry.

In localities where the true American Plan open shop prevails and is practiced without discrimination against individuals, the problem is gradually being solved by co-operation and harmony between the employer and employee with the support of the general public.

Being fully aware of the provisions of the constitution of the National Association, but having considered all phases of the situation and drawn conclusions after due deliberation, as suggestions which are not to be considered recommendations: this National Association of Builders Exchanges, were it permitted to do so, could do more than any one agency to permanently relieve the situation and elevate the construction industry to the plane upon which it rightfully belongs, if it would adopt the policy as a national body, that every man should be permitted to follow the trade of his choice, without being persuaded against his will, intimidated or coerced by any organization, and let it be known that the National Association of Builders Exchanges has for its ideals and requisites, the demand for ability, skill, integrity, and fairness to the extent that any man may enjoy the God-given right to work and earn to the extreme limit of his ability, thereby protecting the future welfare of the industry.

The National Association is the agency that should take the lead in fostering and promoting trade schools in the building trades. A way was provided for this by an Act of Congress in 1917, providing for Federal Vocational Training which can be put into effect through any local board of education. A plan has been drawn for those who have a sincere desire to benefit the industry to pave the way by establishing trade schools in their respective localities. At the present time trade schools are being successfully operated in a number of cities independent of Federal aid, which are training and will ultimately produce a sufficient number of mechanics in every line to satisfy local demand. Either method, depending on local conditions, will produce the desired results. The methods and accomplishments of the trade schools now in operation independent of Federal aid are showing more satisfactory results, for obvious reasons, and are conclusive evidence that the long term of apprenticeship is not essential to the production of a mechanic.

These suggestions are made with the full knowledge that they will be criticised and condemned from some sources, especially by leaders of organized labor, but from all over the country comes the cry of "more mechanics."

There are only two ways to produce or secure men. One is through the channels of immigration—the other, train the

youth of today. We have tried immigration and it has flooded the country with foreigners who are susceptible to the arguments of the agitator and peace disturber. It is not best that we tear down the barrier and permit an influx of more of the same element while we sit idly by and neglect to give the youth of the land this chance. We have never taken the proper interest in the high school boy, or the boy who cannot go on through high school but is forced to discontinue with or before the completion of the grammar grades. We have permitted the labor leader and the agitator to say who shall learn a trade. We have forgotten to look to tomorrow. We have seen good American boys turned loose on the streets when we could have guided them in the right direction. It is true some have succeeded unassisted, but of those who have not, had they been properly looked after and given the opportunity of a choice of occupation in the building trades, how many more could have become respected, self-reliant men and a benefit to humanity instead of going through life untrained, unskilled, and without sufficient knowledge of any trade or occupation to provide for the future and old age?

We owe it to the industry to see that the present and coming generations are given the opportunity to enter the trades without restrictions or limitations. In localities where proper interest in these matters is being displayed and where every man is permitted to work and earn the highest wage according to his ability, they do not feel the existing shortage or have the disturbances to the extent that localities do where opposite conditions prevail.

In conclusion, the National Association of Builders Exchanges, as the leading representative body of the building industry, is the medium through which the present adverse situation can be rectified. To a greater or less extent, we who are representing the industry are responsible for present conditions. Without looking into the future or considering where we were headed, some of us have not been hard to persuade to sign an agreement that would eliminate independent labor and place a limit on the number of apprentices entering the trade. Others of us have been forced to sign these agreements for our own protection by reason of the fact that some had done so.

It is time for the National Association of Builders Exchanges to take a definite stand, one way or the other, and through its allied interests rehabilitate and re-organize the industry on a sound working basis by taking a definite, concrete stand that no organization, man, or group of men, enter into any agreements that are contrary to the spirit, as well as to the letter, of the law of Constitutional Government, and by advocating and requiring that all men engaged in the industry practice the fundamental principle of American liberty set forth in the Declaration of Independence, that all men are created equal and have equal rights to the pursuit of life, liberty and happiness, which is further guaranteed by the Bill of Rights in the Constitution of the United States, the greatest document and highest authority on earth.

By including these indisputable facts in the requirements of the National Association to gain or retain membership, with the co-operation of all interests allied with this organization enforcing the true American spirit, the peace and domestic tranquility of the industry will be restored.

#### **Baker County Power Company to Rebuild Dam.**

Newton, Ga.—The Baker County Power Company of this city, which supplies power to Newton, Camilla, Sale City, Doerun and Moultrie, all in Georgia, has engaged J. E. Sirrine & Company of Greenville, S. C., as engineers for rebuilding its dam, which is located, with the power house, on Ichaway-Nochaway Creek. The new head will be approximately 28 feet.

# Mississippi Valley Land Owners Seeking Foreign Settlers.

[We publish the following letter from Mr. C. E. Collins, of the Southern Alluvial Land Association of Memphis, as a matter of news, but at the end we briefly state our reasons why it does not appeal to us as a wise measure. —Editor MANUFACTURERS RECORD.]

Memphis, Tenn.

Editor Manufacturers Record:

Admittance to the United States of a better class of selected peasant families from Continental Europe not only is favored but efforts to establish them satisfactorily on farms which they may buy without cash payments and on long and easy terms is proposed in a plan just announced as being in the course of formulation by the Southern Alluvial Land Association of this city. Its membership is composed largely of owners of great tracts of land in the alluvial or "made land" portions of the immediate lower Mississippi Valley.

Landowners back of the proposal are in position to "furnish" many immigrant families, supplying food, clothing, farm implements and mules, seed and other necessities for one, two or three years, until the newcomers are well enough along to be self-sustaining. Likewise, the owners can give employment in lumber mills and as farm tenants, sharecroppers and labors in the crop seasons, allowing the extra time to be utilized in clearing up and improving the newly purchased land tracts.

The plan already has been discussed with representatives of at least two governments of Continental Europe and tentative plans are to have investigators of those governments visit the lower Mississippi valley to make reports on the feasibility of the undertaking, both from the standpoint of opportunities and advantages and from the ability of the owners of land to care for and help any immigrants who may be placed. It is expected that the representative of one government will visit this territory within 60 or 90 days.

Most of the governments of Europe maintain departments or bureaus devoted to looking after the interests of their peoples who go to other countries, and it is the plan to secure the co-operation of these bureaus, both in investigating the possibilities of the lower valley section and in selecting a good class or type of ruralist to take advantage of them.

There are thousands upon thousands of worthy families eager for just such chances, it is declared, and they would make highly desirable people in the fast-growing lower valley section, where several million acres are awaiting final clearing and the plow.

It is realized that few of the families, however, are able to even get to America, to say nothing of establishing and caring for themselves after reaching here. Great sums of money and of food, clothing and provisions are being sent by their relatives already in America to the old country at the present time to tide them through the want that has followed the war.

One plan of the Southern Alluvial Land Association is to get in communication with these American relatives, probably through the societies and clubs that are numerous in all the larger cities, and inform them that, if they will bring over their relatives who can and will farm and who can pass the "selection tests," provision will be made for their future.

Let us suppose, for example, that a Chicago citizen, born in Europe, has a brother, father or other kin in the old country who knows how to farm. There are any number of such Americanized citizens in this country. Great numbers of them will, it is declared, gladly pay the expenses of their relatives to America if they know that they will be properly cared for.

It is proposed that such a newcomer would be taken in care by some of the landowners operating through their Association in Memphis. He would be placed on 40, 80, or more acres of good land awaiting development. Housing and provisioning would be provided, along with clothing, food, (to be paid for when he is able), implements, seed and so on. Assuming that he is barehanded and without funds upon arrival, he will be given employment by the man into whose care he is placed, either as a laborer, a tenant, a cropper or in some other capacity. It might be explained here that those landowners now co-operating to work out the undertaking are in position to give such em-

ployment and are financially and otherwise responsible and capable. Many have lands under cultivation adjoining the land which they can allot to the newcomers, so that nearby work can be given, thus enabling the settler to give his extra time to clearing up and developing his own place.

The "furnishing" of such settlers would be neither unusual nor difficult, for it is the customary system now practiced in taking care of negro plantation tenants.

In fact, the continued exodus of negro labor from the cotton-growing region to the industrial centers of the north has given the proposals of the Southern Alluvial Land Association decided impetus. Landowners see in the successful working out of such a plan the relief, to some extent, of an acute need for more farm labor.

It is a well known fact that the average peasant family from Europe is extremely energetic and thrifty and, given land of their own, with work outside to sustain them, they would very quickly get their own property developed to a point where it would be self-sustaining. The landowners in this region expect that, if the project is carried out, it will require two or three years for a foreign settler to get "on his feet," and they are in position to take care of him for that length of time.

One of the great concerns evidenced by the bureaus of the foreign governments is whether any of its emigrants, placed in a new country, will be cared for or be able to care for themselves, and it is one of the first inquiries made. In the instance of the project of the Southern Alluvial Land Association, it would be most essential for the landowner to care for his new families, for not only would he be giving them use of lands for a long period without any remuneration whatever—selling without cash payment and on terms that the settler could meet—but he would be provisioning and otherwise caring for them until they were able to care for themselves. In other words, the landowners, under such an undertaking, would have everything to lose as well as much to gain, whereas the settler would have practically nothing to lose. It would be natural that the settler, it follows, would be given every possible aid and help to quickly get on a self-sustaining basis.

In inviting the investigation of representatives of foreign governments, says President W. H. Dick, of the Association, the landowners feel that they will get both the stamp of approval on the plan and on the region and likewise material help on the other side of the Atlantic in getting people who will fit in. The alluvial or "delta" soil region of the lower Mississippi valley is perhaps the richest soil anywhere, not excepting the valley of the Nile. A large per cent already is provided with drainage; artesian water can be "brought in" on every farm at very little cost; health conditions have become, in the last few years, with drainage and good water, as good as in any purely agricultural region; winters are short and mild and the growing and grazing season exceptionally long, making for very low production; transportation is available to get products to the country's biggest markets practically over-night, and other conditions are admirable for a substantial agricultural development. There are good roads, schools and communities.

The owners of big land tracts frankly admit that they are anxious for farmers who will practice general farming and who will develop excellent farms. They believe that a few such farms in their holdings will be of tremendous value to future development and values. Most of them could sell out in huge tracts for speculation purposes but they are in position to hold their lands for years, if need be. What they want is more rapid but sound development, and they believe that a good class of foreign farmers will come nearer answering their needs than any other. From a half dozen to a score of families on large tracts—and most can handle that many or more—would provide fast development along with a supply of labor that could be fully depended upon. It would help the marketing of good farm land in more than one way and it would certainly help values. At the same time, it would give a foothold for a large number of potentially good and thrifty citizens.

There are, of course, many details that must be taken care of as the program is worked out, but in a general way it has met with approval on all hands. Handled through an association, it is planned, will provide means of regulation and co-operation, and that feature, it already has been discovered,



is of particular appeal to the foreign governments that have been interested in the undertaking.

C. E. COLLINS.

We do not believe that any European Government will cooperate in sending its good people away, but all of them will gladly aid in sending to America the inefficient, the "ne'er-do-wells" and the law violators. There is room in Europe for all good and efficient people; there is no room in America for any more bad or inefficient people.

There are tens of thousands of good, law-abiding tenant farmers and farm laborers in all sections of our country, accustomed to our farming methods and to our civilization, who ought gladly to accept such a proposition as that which the Alluvial Land Association is making to Europeans. Would it not be better, therefore, to go to the small farmers and the tenant farmers in all parts of this country who are almost down and out by reason of the agricultural poverty of the last two years and offer this proposition to them? The mirage in the distance often leads us astray. We suggest, therefore, that these landowners concentrate their efforts upon people now in America instead of upon those in far off Europe. At least let them try it aggressively for one year.

Upon receipt of the letter published above, we wrote to Mr. Collins presenting the matter in about the same way we have given it in the foregoing editorial comment; and in reply to that he states that while seeking to secure foreign farmers for these alluvial lands the Association is also seeking to bring Northern and Western farmers into that section and on similar terms. Mr. Collins' letter on this point is as follows:

"In acknowledging receipt of your letter of recent date commenting on the plan of the Southern Alluvial Land Association to encourage the settling of a good class of foreign immigrants on lands in the immediate lower Mississippi Valley I must say that I neglected to add, in commenting on the proposed plan in the previous letter to you, that the Association is continuing its work of several years to interest northern farmers in this region. In fact all the inducements that are proposed as means of attracting the better class of foreign farmers to this region are being offered native-born.

"There are members of the Southern Alluvial Land Association owning many hundreds of acres of undeveloped but very productive lands which they hope eventually to see in good, substantial farms. Most of them could easily dispose of their holdings in big tracts for speculation purposes but they are in position to hold them and to reap, consequently, any benefits that will be derived with the continued development of this territory, now going ahead at a surprising rate. They are of the belief that good small farms developed in their holdings will be one means of speeding up the time when they can realize most from their property and with that idea in mind, there are quite a number who are willing to go much more than half-way to take care of a purchaser who will go upon the property personally and improve and develop it. By more than 'half-way' I mean that they will allot him land with little or no cash payment, provided of course, he can produce evidence that he is trustworthy, ambitious and otherwise to be depended upon. Also, they will make payments on very long and easy terms, even to the extent of requiring no payments for two or three years. On top of this, they will provide farm implements, farm livestock, seed and will advance food and clothing subject to payment, of course.

"On top of these things, they will, if the man buys a tract not ready for the plow, see that he is given employment either in saw mills or otherwise, or let him farm lands already in cultivation on a tenant or share-crop basis. Thus he can take care of his needs for two or three years, using his spare time for getting his own property to a self-sustaining basis. Then he can go upon his farm and start paying for it.

"As you can see, the plan must depend upon care in selection of the newcomer. That applies not only to the native-born but to the immigrant. He must display evidences of wanting to be a land owner and of being willing to buckle down to work.

"Thus an energetic northern farmer or tenant farmer,

empty-handed and with no means whatever, may come to this territory, get land that suits him, farm on a tenant or share basis with assurance that he will have credit for necessities, put in his spare time on his own place—and he can have much time if cropping cotton—and inside of a few years, is a land-owner with very bright prospects of being paid out in a very short time. There are many instances where such chaps have paid out in two to five years—and in the Corn Belt country, twenty years is considered a very good record, which means a living and 5 per cent on the farm's earnings.

"In a general way, the immigrant, it is proposed, will be treated similarly. He will get the same chances.

"The chief interest in the immigrant, however, is in his energy and ability to get ahead rapidly, a trait well known. The land owners in this region believe that they can depend more, in some ways, upon the immigrant than upon the fellow who has not been so 'up against it'. Moreover, it is the belief that the immigrant probably will make better success as a tenant or share-cropper. It depends of course upon the individual but on the average, such is probably the case. But the native-born is offered the same chance if he wishes to avail himself of it.

"Of course the average owner much prefers an initial cash payment. A good many in this region are requiring 10 per cent, some at least six per cent in cash. Then payments are based on the improvements—if a third of the property is cleared up and put under the plow, the first payment is not required (the first note after the initial payment) until the end of the third year. Thus the buyer pays \$4 to \$10 an acre for his land in cash and has three crop years to 'get on his feet' before he is required to make another payment, say of a fifth or a fourth, of the balance due. This plan has been adopted by at least two companies that I know, one having sold more than 50,000 acres of very fine land in tracts of from 40 to 200 acres, and the other in only about 90 days having disposed of 6000 acres, chiefly in small tracts.

"I doubt if there is a place in America where the energetic, ambitious young farmer has a better chance of starting with nothing and paying for a farm of his own in such short time as is possible in this region. You are familiar, I feel certain, with the wonderful fertility of the soil of the alluvial plains of the lower valley and the tremendous advantage of the long growing season and short mild winters in making for very low production costs. That is the thing, in the final analysis which the farmer must look to now—low production cost. He must produce all that he can as cheaply as he can, whether he be a fruit man, a cattle man, a cotton man or some other sort of a farmer. In this territory, every crop common to the Corn Belt can be produced with yields even exceeding those of the Corn Belt states, and there is cotton and other sub-tropic crops to be depended upon in addition.

"It should be a great country for the thrifty, energetic and better class of foreign peasant. (I know of one Italian with a wife and two children who cleared \$9000 from a 30-acre tract in 1922, renting the place and growing truck and sweet potatoes). And the territory holds the same chances identically for the northern farmer who is thrifty and energetic and willing enough to tackle a place and undergo some of the disadvantages which a newer region necessarily must be expected to have. He may not be able to get to a first-class picture show in 15 minutes, but he will find schools, churches, good towns, splendid transportation facilities, including water transportation on the Mississippi and many other things that pioneers in the olden days never dreamed of having.

"But if the northern farmer and the young and tenant farmers of the country pass up such opportunities, it is not possible to force them. The chances are here in abundance. We have been striving very earnestly for several years to make them known and have met with much success but there still are millions of acres of land that is yet untouched. If the better class of 'hand picked' foreign farmers can be procured in modest numbers, there is no reason to fear their 'alien leanings'. It is realized of course, that a good class must be procured, for the owner of the land has all to lose as well as much to gain and he could not take the chance of assuming practically every responsibility without at least a moral obligation, as security."

The American Bankers Association is to hold its annual convention this year at Atlantic City from September 24 to 27 inclusive, the general sessions to be held on the "Million Dollar Pier."



## **\$18,000,000 IMPROVEMENT PROGRAM FOR GEORGIA RAILWAY & POWER COMPANY.**

**Total of \$11,568,000 Added to Program Already Outlined—Will Increase Company's Output of Hydro-Electric Power 134 Per Cent.**

The Georgia Railway & Power Company announces a program of hydro-electric development totalling \$11,568,000 in addition to the \$6,500,000 plan already outlined for 1923.

The new program will make the deliverable output of the company two and a third times the present capacity. Provision is made, among other items, for four new water power plants. The developments to be made during the years 1923 to 1926, inclusive, bring the total cost of the company's program for enlargements and improvements of service to more than \$18,000,000.

The work is to begin within the next few weeks and is to be pushed to completion, increasing the deliverable output of the company 134 per cent, from 272,000,000 to 635,000,000 kilowatt hours per year. The program means that four water power plants—two new ones and the Tugalo and the Mathis-Tallulah—will be under construction simultaneously, the others to follow in rapid succession. According to P. S. Arkwright, president of the company:

"This means that any community receiving our power can now seek any industry, no matter how large, with the assurance that a dependable and abundant supply of power will be available.

"H. M. Atkinson, Chairman of the Board, has just completed the task of financing the developments. Mr. Atkinson has supreme faith in Georgia, but his initiative and endeavors could never have been rewarded without the friendly attitude of the public, encouraging developments and enabling the borrowing of the necessary new capital.

"We hope that when these developments are finished and possibly even before, we shall have under way still other developments to advance the growth of Georgia."

Construction will be started on the first two of the four new power plants this summer and carried along at the same time work is in progress on the Tugalo and the Mathis-Tallulah water power plants. Both of these will be at points yet to be determined on either the Tallulah or Tugalo rivers. Borings to determine the best locations will be started within the next few weeks and soon thereafter construction will begin and the work finished in about a year.

Of the two other power plants to be erected, one will be at the Burton dam, the largest storage reservoir of the company. The fourth is the Seed development to be located on the Tallulah River between the Burton and the Lakemont or Mathis dams. The Seed development is to be finished in 1925 and the Burton power plants in 1926.

Coincident with the construction of the new power plants necessary transmission lines, sub-stations, etc., will be built in order that the energy may be ready for delivery to the public at the earliest possible moment.

Also included in the program and to be completed in 1924 or sooner are transmission lines from Lindale to Summerville, to LaFayette, to Chickamauga, to the Tennessee state line; from Marietta to Canton, to Bell Ground, to Tate; from Berryton to Summerville, to Trion; from Social Circle to Madison.

Transformer stations are to be erected at LaFayette, Chickamauga, Marietta and Summerville and extensive improvements are to be made on the Butler and Davis street steam stations, in addition to those already announced, in order that the Company may always have ample steam reserves.

Announced previously on the 1923 program were the completion of the Tugalo developments, now under construction; the \$1,000,000 Mathis-Tallulah power plant at the head of the Tallulah Lake; a new 110,000 volt transmission line from

Tallulah through Toccoa, Commerce, Jefferson, Winder, and Lawrenceville to Atlanta; various sub-stations; increased gas service in Atlanta and Kirkwood; vastly improved street railway service and numerous other improvements to insure additional, continuous and dependable power service.

Water of the Tallulah and Tugalo rivers will be used six or more times to generate power under proposed developments. First at the Burton power plant; thence into the lake to be created by the Seed development; on through the Seed power plant, the Mathis lake and power plant, the Tallulah lake and power plant; the Tugalo lake and power plant and also the two other power plants at locations not yet decided upon.

Not later than by the end of 1926 power from seven water power plants will be actually in use, all of it controlled through the great control switching station to be erected at Tallulah this year and which will make it possible to switch any of the power from any of the seven stations onto any of the transmission lines whenever desired.

The first in the development program was the Tallulah Falls dam and power plant, completed in 1913. The second was the Mathis or Lakemont reservoir. The third, the gigantic Burton dam which formed a lake 64 miles in circumference, was started in 1917 at the same time as the Tugalo development and was completed in spite of the large costs then prevailing. The fourth, the Tugalo development, started in 1917 and discontinued on account of war conditions and the inability of the Company to finance it, is to be finished this year. The fifth development, the Mathis-Tallulah power plant is to be started this summer and the four other power plants will follow as announced above.

### **Steel-Furniture Shipments Increasing.**

Shipments of steel-furniture stock goods by manufacturers showed continued growth throughout 1922, according to figures published by the Department of Commerce from a compilation by the Census Bureau in co-operation with the National Association of Steel Furniture Manufacturers. The shipments in December, 1922, were the largest in over two years. January shipments were only one per cent less than December and amounted to \$1,362,470.

Statistics from 22 manufacturers, comprising practically the total output of steel-furniture stock goods, show that the year 1922, with total shipments of \$12,928,026, was the second best year since the war, being exceeded only by the record \$17,659,303 shipments of 1920. The largest shipments occurred in September, 1920, with a total of \$1,730,393, while the lowest record was in June, 1919, at \$690,855. There has been a steady increase each month since August, 1922, in these shipments which include sections, counters, office and vault verticals, safes and interiors, desks and tables and small miscellaneous articles, exclusive of shelving and lockers.

### **Development Work on Seaboard Air Line.**

Clement S. Ucker, director of development on the Seaboard Air Line Railway, has established headquarters for the development department of the system at Savannah and the office of J. M. Jones, general development agent, formerly at Norfolk, is now located at Savannah as is Mr. Ucker's. All development activities relating to lands, agricultural and industrial expansion, etc., will hereafter be directed from there. W. T. White has been appointed manager of agricultural work between Savannah and St. Mary's, Fla. Agents of the development department are located at several points on the system including Norfolk, Va.; Hamlet, N. C.; Florence, S. C.; Savannah and Cordele, Ga.; Jacksonville, Tampa and Plant City, Fla. The work of the department is to be further extended and actively pushed throughout the entire territory covered by the Seaboard System.

### Missouri Pacific Railroad to Build \$2,000,000 Grain Elevator in St. Louis—Capacity 2,000,000 Bushels.

St. Louis, Mo.—Preliminary details have been completed and bids have been invited for the construction of the \$2,000,000 grain elevator to be erected here for the Missouri Pacific Railroad, of which E. A. Hadley is chief engineer, with offices in St. Louis.

The plant will have a storage capacity of 2,000,000 bushels of grain and its location on the river front will make possible co-operation with barge lines on the Mississippi and will make loading and unloading very much easier than at present.

Construction will be of reinforced concrete, the main building to be 309 by 130 feet, exclusive of the boiler house and the drier buildings which will add considerably to the length of the structure. The workhouse will be 226 feet high and the bins 125 feet. There will be 80 circular bins, each about 16 feet in diameter, all of reinforced concrete. The space between the bins will also be utilized for grain storage.

Tracks to serve the elevator will have a storage capacity of 250 cars and the plant will be able to handle 120 cars in an 8-hour day. All machinery will be driven by individual motors, so that independent operations may be conducted in any part of the building. The main building will be connected by a marine chute with a loading device on a timber crib at the water's edge. A small amount of dredging will be done to assure a sufficient depth of water at all times.

The Folwell-Ahiskog Company of Chicago are the engineers for the construction and equipment of the plant. Contract has been awarded to the Continental plant of the Alpha Portland Cement Company at St. Louis for 37,500 barrels of cement, and to the Laclede Steel Company of St. Louis for 1050 tons of reinforcing steel. It is stated that negotiations have also been closed for the motors required.

### Baltimore Laundry to Erect \$500,000 Plant.

Bids will be invited for the construction of a new laundry plant in Baltimore by Archer's Laundry as soon as plans and specifications are ready for estimates, which will be in about three weeks. The new plant will front 150 feet on Eutaw street, with elevations of 242 feet on St. Mary's street, 103 feet on McCulloh street, and extend back diagonally to Eutaw street.

The structure will be erected at a cost of about \$500,000 and will contain floor space of 75,000 square feet. It will be three stories high, of fireproof construction, reinforced concrete, with a glazed terra-cotta front, and will contain an electric light and power plant in which all new machinery will be installed. New laundry equipment will also be placed in addition to some of the equipment at present in use at the old plant.

Plans and specifications are being prepared by J. K. Stack of Baltimore.

### Ichthyol in High Per Cent Found in Large Shale Deposit Near San Antonio.

San Antonio, Tex.—While drilling for oil upon the farm of Frank P. Carle, 18 miles from San Antonio, a big deposit of shale that contains a high percentage of ichthyol was discovered a few days ago. The stratum was encountered at a depth of 130 feet. It is claimed that the yield of ichthyol from this shale is greater than that which is obtained from the deposits in Switzerland from which country ichthyol is imported. For several years ichthyol has been obtained from a shale deposit situated near Burnet, Texas. When refined the product is a valuable medical compound, used in a wide variety of diseases.

Mr. Carle will drill a number of test holes upon the land to determine the extent of the deposit, preparatory to mining the shale and extracting ichthyol.

### Nearly \$700,000 of Contracts Let for U. S. Veterans' Hospital.

Gulfport, Miss.—Contracts totaling nearly \$700,000 have been awarded by the Bureau of Yards & Docks, L. E. Gregory, Chief, Washington, D. C., for the erection of buildings and the installation of equipment for the U. S. Veterans' Hospital at Gulfport.

The structures include a medical, administration and clinic building, 3 stories, 44 by 272 feet; educational building, 2 stories, 93 by 255 feet, with floors and corridors faced with marble and tile; subsistence stores building, H-shape, 50 by 155 feet, and another structure, 40 by 87 feet; a building to connect the last two, 38 by 62 feet, all two stories; building for disturbed patients, 2 stories, 78 by 122 feet, and a boiler house, 2 stories with a mezzanine floor, 49 by 122 feet. There will also be 800 feet of covered walks, 8 feet wide and 9 feet high, terra cotta pipe sewerage line, cast iron pipe water line and macadam roadways.

All buildings will be of reinforced concrete floor slabs and hollow tile partition walls, with the exception of the power house which will be of steel frame and metal sash. The structures will be faced with brick, stucco and terra-cotta and trimmed with limestone. Roofs will be of Spanish tile, except flat surfaces which will be of 5-ply built-up roofing, and the covered walks which are to be of slate.

General contract was awarded to Algernon Blair of Montgomery, Ala., at \$498,580; contract to Hamilton Bros. Co., Gulfport, at \$45,802, for water, sewer and drainage; to William Wilby, Selma, Ala., at \$60,621, for inside heating and outside steam, etc.; to Herman Androe, Milwaukee, Wis., at \$25,022, for electrical work, and to Frank J. Elsinger, Brooklyn, N. Y., at \$53,594, for boiler house.

### Will Build \$300,000 Hydro-Electric Plant.

Milltown, Ga.—Application has been made for a charter for the Lanier County Power Company, capitalized at \$300,000 with privilege in increasing to \$1,000,000, for the purpose of building a hydro-electric power plant on Lake Irma, Banks Pond, near here, which covers an area of 11,000 acres. A canal will be dug connecting the pond and town, and water will be piped to Lake Irma.

Work on the project will begin as soon as approval has been secured from the State Service Commission, construction contract having been awarded.

The principal promoters of the enterprise include F. E. Hatch, of Albany, R. T. Berryhill, of Milltown and R. L. Hall, of Baker County.

### Church Group to Cost \$275,000.

Durham, N. C.—The Board of Stewards of Trinity Church will erect a group of buildings, including a main structure Sunday school building and pastor's house, at an estimated cost of \$275,000. The building committee, of which R. J. Baldwin is chairman, has engaged Cram & Ferguson of Boston as architects, with the T. C. Atwood Organization of Durham, as associate architects and construction engineers. A period of two or three months will probably elapse before final plans are adopted and contracts let.

### Will Build \$1,500,000 Hotel at Miami Beach.

Miami, Fla.—Plans have been prepared by Lee L. Wade and general contract awarded to A. B. Wade & Son of this city to erect a 12-story hotel at Miami Beach, which will cost \$1,500,000. Columbus H. Boyles is the owner. Boring for foundation tests has already begun.

The building will be of fireproof construction, having a steel frame, steel lumber joists and concrete floors. There will be 300 outside rooms and 300 baths with tile floors. Three high speed elevators will be installed.



### Increase in Petroleum Refining for 1921.

The Department of Commerce announces that the value of products of establishments engaged primarily in refining petroleum amounted to \$1,727,440,200 in 1921, as compared with \$1,632,532,800 in 1919 and \$396,361,400 in 1914, an increase of 5.8 per cent from 1919 to 1921, but an increase of 335.8 per cent for the seven-year period 1914 to 1921. The number of establishments has steadily increased from 176 in 1914 to 320 in 1919 and 366 in 1921. Of those reported for 1921, 67 were located in Oklahoma; 64 in Texas; 53 in Pennsylvania; 45 in California; 23 in Kansas; 16 in Louisiana; 13 each in Illinois, Ohio, and Wyoming; 9 in New Jersey; 6 each in Kentucky and New York; 5 each in Indiana, Missouri and West Virginia; 4 each in Colorado and Maryland; 3 each in Arkansas and Massachusetts; 2 in Rhode Island; and 1 each in Delaware, Georgia, Minnesota, Montana, South Carolina, Utah, and Virginia.

The increase in the value of products has been accompanied by increases in the number of persons employed, in the total amount paid for salaries and wages, and in the cost of materials used.

The statistics for 1921, 1919, and 1914 are summarized in the following statement; the figures for 1921 are preliminary and subject to such change and correction as may be found necessary from a further examination of the original reports:

	1921*	1919*	1914*
Number of Establishments	366	320	176
Persons engaged	74,291	73,473	31,077
Proprietors and firm members	55	59	52
Salaried employees	11,039	14,525	5,659
Wage earners (average number)	63,197	58,889	25,366
Salaries and wages	\$129,262,700	\$116,368,700	\$27,289,900
Salaries	27,940,300	26,619,000	7,892,400
Wages	101,322,400	89,749,700	19,397,500
Contract work	4,832,000	2,352,000	502,700
Cost of materials	1,382,425,000	1,247,908,400	325,264,500
Value of products	1,727,440,200	1,632,532,800	396,361,400
Value added by manufacture	345,014,800	384,024,400	71,096,900

\* Figures for 1921 do not include establishments reporting products under \$5000 in value, thus excluding 7 establishments which employed 7 wage earners, and in the aggregate reported products to the value of \$22,752. The figures for 1919, however, include 4 such establishments, which employed 2 wage earners, and reported products to the value of \$10,996.

### Contract Awarded for \$650,000 Hotel at Charleston.

Charleston, S. C.—General contract for the erection of Hotel Fort Sumter, which will be built here by Edward J. Murphy and associates, has been awarded to the J. E. Beaman Construction Company of Raleigh, N. C., at \$405,000. With equipment, it is estimated the building will cost about \$650,000.

The structure will be 7 stories, 100 by 170 feet, of fireproof reinforced concrete, with a concrete pile foundation, concrete, steel and tile floors and a built-up tar and felt roof. It will contain 185 rooms and will be equipped with vaults and one freight and two passenger elevators. G. Lloyd Preacher & Company of Augusta and Atlanta are the architects.

In addition to the general contract, awards have been made to the Raymond Concrete Pile Company of New York for concrete piling, and to the Hardy Electric, Plumbing & Heating Company of Savannah, for heating, plumbing and electrical work.

### To Build Oil Refinery of 2000 Barrels Capacity.

Laredo, Tex.—Temporary organization of a company, capitalized at \$250,000 has been effected here with Oliver W. Killam, president, for the purpose of building an oil refinery at Mirando City. The plant will have a capacity of 2000 barrels.

Mr. Killam who is the president of the Tex-Pata Pipe Line Company and other enterprises, has gone to Cincinnati, it is stated, for the purpose of ordering necessary machinery.

### Dallas Athletic Club to Erect \$1,500,000 Building.

Dallas, Tex.—The Dallas Athletic Club, T. L. Monagan, executive secretary, has awarded contract at \$878,000 to the Central Contracting Company of Dallas for the erection of its proposed 14-story building. It is estimated that the plumbing, heating and ventilating, wiring and other equipment will increase the cost to \$1,500,000.

Dimensions of the structure are about 200 by 300 feet. It will be of reinforced concrete and steel, faced with terra-cotta, brick and stone. Excavation will be completed within a few weeks and construction will then begin.

Provision has been made for rooms and suites for men, with furnishings and servant facilities. For the families of members there will be special dining rooms, tea rooms and other club quarters where they may entertain. Other facilities include swimming pools, gymnasiums, rest rooms, bowling alleys, etc.

Plans and specifications for the building were prepared by Lang & Witchell of Dallas.

### Mexican Finances Justify Optimism, It Is Declared.

San Antonio, Tex., March 3.—[Special.]—While in San Antonio on his way to New York to attend a conference with the international bankers' commission, E. Casas Alatrieste, head of the Mexican Finance Commission, made an optimistic statement in regard to the financial condition of Mexico.

"Our commission has for its purpose the definite exchange of bonds in payment of the foreign debt of Mexico, according to the terms of the Lemont-Adolfo de la Huerta agreement," he explained. "The conference at New York will be with the international bankers' commission on the subject of the foreign debt and does not have anything to do with the Blanco Unico. At least I have not had any such instructions. After the first conference it has been tentatively decided that 25,000,000 pesos will be the initial payment of interest to the international bankers. Further arrangements for meeting the Mexican foreign debt will be worked out by the Mexican commission in conference with the international bankers' commission but what our proposals will be I am not at liberty to give out."

Mexico was never in better financial shape than it is at present, according to Dr. Alatrieste. He stated that governmental affairs are being handled in much better manner than ever before and the credit of Mexico in the world markets will be established on a firm basis within the next few years.

### Contract for \$460,000 Hotel at Johnson City.

Johnson City, Tenn.—Contract has been awarded by the Johnson City Hotel Company for the erection of its hotel here to cost about \$460,000, including mechanical equipment. Plans and specifications have been prepared by W. L. Stoddard and the general contract awarded to E. W. Minter Co., Inc., both of New York.

The building will be 9 stories, of reinforced concrete, and will contain 120 rooms. It will be trimmed in ornamental terra-cotta, covered with a tar and gravel roof, and equipped with metal doors, mail chutes, two electric elevators, etc.

### Purchases 5500 Acres Coal Land in Boone County.

Charleston, W. Va.—In addition to the large acreage acquired recently by the Mellons in Boone County, the Westmoreland Coal Company has purchased from the Laurel Coal and Land Company 5500 acres of coal land on Ford Fork of Little Coal River, in the same county. The property acquired was owned principally by Major Joe Chilton and former Senator William E. Chilton. It is not far from the Logan County line and adjoins the holdings of the Mellons and of the Burlew Coal Company.

Lumber

### Striking Increase in Building Throughout Country.

The monthly building survey of S. W. Straus & Company for February shows an approximate total of building permits for the whole country of \$340,000,000. The February figures for the principal cities indicate a building boom over the greater part of the country far beyond expectations earlier in the year.

Detailed official reports submitted the company by the building departments of 179 cities, give a total for February of \$226,123,290. The same cities in February 1922 had a total of \$153,675,445, an increase of \$72,447,845 or 47 per cent.

One of the outstanding features is the gain of 96 per cent shown in the Central West. In the Pacific West, the gain was 52 per cent; in the East 33½ per cent and in the South 10 per cent.

In the South some of the large February totals included Atlanta, \$2,000,000; Birmingham, \$567,000; Chattanooga, \$654,000; Dallas, \$1,850,000; Ft. Worth, \$550,000; Houston, \$1,685,000; Jacksonville, \$803,000; Knoxville, \$648,000; Louisville, \$1,151,000; Memphis, \$2,051,000; Nashville, \$1,511,000; New Orleans, \$680,000; Richmond, \$1,211,000; San Antonio, \$624,000 and Winston Salem, \$577,000.

### Tampa Tribune May Erect 15-Story Building.

Tampa, Fla.—The purchase of a building at the corner of Tampa and Twigg streets, at present occupied by the Bentley-Gray Dry Goods Company, has been consummated by the Tampa Tribune, Col. W. F. Stovall, proprietor, who is considering erecting a 15-story building on a vacant lot adjoining.

B. C. Bonfoey of this city is working on two sets of plans, one for a 4-story structure and the other for a 15-story building. It is more than probable that the new addition will be 15 stories, the ground floor to be devoted to mercantile purposes and the remaining floors to offices.

The Tribune will occupy the present building after remodeling it, but under an agreement with the Bentley-Gray Dry Goods Company, it will remain in its old building until a new structure is erected for the Bentley-Gray Company. This is expected to be ready by next January, and will be located at the corner of Pierce and Zack streets. Construction will begin in May. It will be 105 by 105 feet, either 4 stories and basement or 5 stories, of fireproof construction, with a garage in the rear of one or two stories.

### To Develop 2000 Acres of Kentucky Coal Land.

Madisonville, Ky.—After an investigation by Geo. R. Dempster, President of the Dempster Construction Co., of Knoxville, Tenn., and W. R. Walker, Engineer, of Steubenville, Ohio, the Dempster company has purchased 2000 acres of coal land in Western Kentucky and has secured options on other stripping areas.

The property is located on the Illinois Central Railroad, and is said to contain a vein of coal 5 feet in depth, with an average overburden of 30 feet. Labor and equipment are being shipped and it is the purpose of the company to develop the production to 2000 tons daily, which will be handled over a modern tipples, equipped with improved screens, construction of which is contemplated as soon as engineers complete plans. Local officers of the company will be maintained at Madisonville.

### 600-Room Hotel for Memphis Under Construction.

Memphis, Tenn.—Plans for the erection of a 600-room hotel in this city at the southeast corner of Second street and Union avenue, are being considered by the Memphis Hotel Company, of which A. L. Parker is general manager. It is estimated that the building will cost \$4,000,000, and tentative plans are being prepared by Walter W. Ahlschlager, Inc., of Chicago, but a definite decision to build has not yet been reached.

### Chile Competitor in Shipping Oranges to United States.

So successful last summer was a trial shipment of oranges from Chile to New York that plans are now being made for the establishment of regular forwardings of the fruit from this new source, says a report to the Department of Commerce from Consul Von Tresckow, Arica, Chile. Early last June a local merchant at Arica sent a small consignment of oranges to New York and although they were not specially selected and it was not possible to forward them in cold storage, they arrived with only a loss of 20 per cent spoiled. The importing firm was so pleased with the quality of the oranges and their successful transportation that it cabled for immediate shipment of one million. As this was a rather sudden development of the situation, the growers were not prepared with the necessary crates and packing facilities and had to pass up the business. Last spring the Pacific Steam Navigation Company installed a cold storage plant in one of its steamers and 10,000 crates of fruit were successfully sent from Valparaiso to New York, and oranges could no doubt be shipped similarly from Arica. In 1921 there were 2228 fruit-bearing orange trees out of a total of 2567 trees in Arica province, and the annual crop is estimated at from five to six million oranges.

### Manufacture of Dyestuffs and Extracts for 1921.

The Department of Commerce announces that reports made to the Bureau of the Census show a considerable decrease in the activities of establishments engaged in the manufacture of dyestuffs and tanning extracts during 1921, in comparison with the year 1919. The total value of products reported amounted to \$28,310,700 as compared with \$53,744,300 in 1919, and \$20,620,300 in 1914, a decrease of 47 per cent from 1919 to 1921, but an increase of 37 per cent for the seven-year period 1914 to 1921.

Of the 123 establishments reported in 1921, 22 were located in Massachusetts; 17 in New York; 16 in New Jersey; 15 in Virginia; 12 each in Pennsylvania and Rhode Island; 10 in Tennessee; 5 in North Carolina; 3 in Illinois; 2 each in Florida, Michigan and West Virginia; and 1 each in Alabama, Connecticut, California, Maryland and Wisconsin.

### Texas Iron Works Completes Houston Plant.

Houston, Tex.—Construction of the Texas Iron Works, new central plant in Houston for the manufacture of oil field supplies has been finished. Organized in 1917 at Goose Creek, the company later opened subsidiary plants in the oil field of Blue Ridge and Pierce Junction. Construction of the main plant in Houston was to locate headquarters centrally and to afford the best shipping and rail facilities. The three other plants will remain in operation. All forging work will be done in Houston and oil field supplies manufactured here will be distributed from this point.

"We receive steel and other material by water now and we plan the shipment of supplies out of Houston by water to all parts of the country," said L. M. Pierce, vice president and general manager of the company.

### \$1,000,000 Plant for Blue Ridge Power Company.

Spartanburg, S. C.—The Blue Ridge Power Company, W. S. Montgomery, president, announces through its secretary and treasurer, John A. Law, that a new \$1,000,000 plant will be erected on Green River to develop 10,000 horse power. The authorization of this plant is in line with the demand for more hydro-electric power in this section because of the building of new cotton mills and expansion on the part of plants already here. The present plant of the company is on Lake Summitt, near Tuxedo, N. C., and has a capacity of 8000 horse power.



# THE IRON AND STEEL SITUATION

## Steel Production Goes Above Post-War Record Rate —Consumption Limited Only by Labor Supply

Pittsburgh, March 10.—[Special.]—Production of steel ingots in February was at a rate of about 44,000,000 tons a year, against rates of 43,500,000 tons in January and 40,000,000 tons in the last three months of the old year. Production was increasing during February and it has been increasing this month, so that the present rate is well above 45,000,000 tons a year, thus breaking the post-war record rate, which was 45,000,000 tons, in March, 1920. The highest actual production in a year was 43,619,200 tons, in 1917.

During the war steel producers were fearful as to conditions after the war, on account of the large increase in capacity, there being a question whether profitable prices could be obtained. In this connection there are two developments. It has been practically impossible to operate at capacity at any time since the war, on account of physical conditions, labor supply being just now the most important factor. Also there is the development that even with the large capacity visible, consumers of steel become fearful as to their supplies. While there has not been a panic among the buyers there has been somewhat more anxiety than occasion justified. The mills have had no difficulty in advancing prices and they say that if buyers were allowed to act they would bid the market up farther.

In all lines of steel consumption there is great activity. Consumption of steel could not possibly be better, and indeed it is probably a perfectly safe guess that actual consumption, although at the limit made by labor supply, will not be equal to the plans.

By any standard of comparison the production of steel has been and is very heavy. There is much evidence, right in the steel market, suggesting that many steel consumers do not appraise the situation rightly. They seem to have fears as to the supply of steel, whereas the limiting factor this spring and summer will be labor supply in conducting operations involving the consumption of steel. If the steel is properly distributed, placed where it can be used, there will be an ample supply for all the work that can be done. The steel industry has been functioning very well. Only in March, 1920, has the industry operated at as high a rate as in the past few weeks. Then it was just beginning to make up the shortage produced by the successive strikes late in 1919, first in steel and then in coal, while after March the "outlaw" rail strikes curtailed steel production sharply.

While basis steel prices, for late or extended delivery, have shown no advance in the past week, the advancing tendency exists as to the iron and steel market in general. This is shown by advances in the past week in pig iron, sales of semi-finished steel at new high prices, and the spread of the delivery premium market, prompt plates in fair sized lots, chiefly for oil tank work, having brought 2.60c, or \$7 a ton premium over the basis price, which is 2.25c for bars, shapes and plates.

Keen observers predict that the edge will come off the steel market in the near future, perhaps in a few weeks. Consumption of steel will continue well into the second half of the year at the highest rate possible with the labor supply available, the business engagements having already been made, and in some lines, such as freight car building, the activity will continue into the new year, as the car shops cannot possibly complete this year the orders they already have on books. Enough steel will be made to cover all requirements but production during the remainder of the year may not average the present rate.

If the steel market turns easier no particular harm will

be done, as much of the steel still due from mills is at less than current market prices.

The buying movement in Connellsville furnace coke for second quarter is now nearly completed, with about 250,000 tons a month placed under contract during the movement, chiefly at \$7.00, with a few of the more recent contracts at \$7.25. With other requirements upon the ovens, production at the present rate is fully absorbed.

The coal market has weakened farther. Pittsburgh steam coal is now at \$2.50 to \$2.60. Connellsville steam coal recently declined until \$2.00 was not easily obtained, and a dozen or more mines have closed in consequence. By-product coal, of course, is in very heavy demand, and it commands profitable prices, \$2.75 to \$3.25 according to grade.

The valley pig iron market has advanced sharply in the week. Foundry iron had been moving up somewhat grudgingly since the middle of December, 50 cents at a time, until \$28.50 was struck about a week ago. Then, apparently with no sales at intermediate prices, the market jumped to \$30, at which round tonnages have been sold, and the clear prospect is that the market will go still higher in the present buying movement. Basic is up \$1 to \$28, valley, and Bessemer 50 cents to \$29, but furnaces are now quoting \$30 and will probably secure the advance.

## Iron and Steel Production.

The monthly production of steel ingots, January, 1921, to February, 1923 as reported to the American Iron and Steel Institute, New York, by 30 companies which made 87.50 per cent of the steel ingot production in 1921, is as follows:

Months.	Open Hearth. Gross tons.	Bessemer. Gross tons.	All Other. Gross tons.	Total. Gross tons.
1921.				
January, 1921.....	1,591,281	608,276	3,629	2,203,186
February .....	1,295,863	450,818	2,796	1,749,477
March .....	1,175,591	392,983	2,404	1,570,978
April .....	1,000,053	211,755	2,150	1,213,958
May .....	1,047,810	216,497	1,543	1,265,850
June .....	808,286	193,644	1,476	1,003,406
July .....	689,489	113,312	575	803,376
August .....	915,334	221,116	1,621	1,138,071
September .....	908,381	265,152	1,207	1,174,740
October .....	1,269,945	345,837	1,028	1,616,810
November .....	1,294,371	363,912	1,718	1,660,001
December .....	1,129,174	296,380	1,539	1,427,093
Total .....	13,125,578	3,679,682	21,686	16,826,946
1922.				
January, 1922 .....	1,260,809	331,851	822	1,593,482
February .....	1,395,835	348,571	616	1,745,022
March .....	1,918,570	451,386	795	2,370,751
April .....	1,997,465	445,939	1,109	2,444,513
May .....	2,214,774	494,893	1,474	2,711,141
June .....	2,143,708	487,851	2,918	2,634,477
July .....	2,020,572	464,047	2,485	2,487,104
August .....	1,807,310	404,379	2,893	2,214,582
September .....	1,911,147	460,127	2,505	2,373,779
October .....	2,352,207	518,010	2,198	2,872,415
November .....	2,360,903	525,945	2,449	2,889,297
December .....	2,241,104	536,214	2,572	2,779,890
Total .....	23,624,404	5,460,213	22,836	29,116,453
1923.				
January, 1923 .....	2,571,491	677,486	2,717	3,251,694
February .....	2,290,418	625,838	2,761	2,919,017

## Pig Iron Sells at Higher Figure for Third Quarter Delivery—Production at Top Notch.

Birmingham, Ala., March 12.—[Special.]—Even at an advanced quotation, Southern furnace interests are able to sell pig iron, \$26 per ton, No. 2 foundry being asked, as minimum, and sales being made for third quarter delivery. Production in Alabama is being given careful attention. Preparations are well in hand for an increased output and prospects bright for continuation of the conditions for an indefinite period. Some inquiries are coming in for last half delivery, which means there is already in sight a need for iron the last quarter. While some purchasing is being sought on second quarter delivery, consumers have been

given to understand almost that this is considered spot iron, so to speak. The advance in quotations is a result of supply and demand, though costs of production, occasioned by increased wages contemplated for coal and ore miners, and in other directions may have something to do with the case.

An estimate of the amount of iron sold already for delivery during this year goes up in the hundreds of thousands of tons, not much under the million ton mark. The district is producing well above 220,000 tons per month and if nothing happens to mar the arrangements, the present month will show a most wonderful output. Demand comes from every direction. Considerable iron is being shipped by the Sloss-Sheffield Steel & Iron Company from its Florence and Sheffield furnaces on the Tennessee river to Metropolis, Ill. and from there distributed by rail into the Chicago territory, a differential in freight rates being enjoyed. The far west has lately been buying some pig iron in the Birmingham district, shipment to be made by water through the port of Mobile.

The home consumption is showing steady increase. The starting up of the new cast iron pipe plant of the McWane Cast Iron Pipe Company, manufacturing pipe ranging from 1 1/4 to six inches in diameter, on March 1, will be followed within 60 to 90 days by two other large soil pipe works, new plans, in this district, one at Holt, in Tuscaloosa County, and the other by the Birmingham Machine & Foundry Company in East Birmingham. Several of the soil pipe companies of this State recently adjusted wages and there is steady operation in every direction with the production extremely heavy and the product going out about as quickly as it is manufactured. The pressure pipe plants announce additional lettings received lately. No little tonnage was recently booked from Washington state, while California, has again been in the market and further business is to be let in the next week or 10 days.

Steel mills of the district are also well stocked up with business, operations for at least six months more being in sight. The Gulf States Steel Company now has all six open furnaces in operation at its plant near Gadsden while the entire finishing department is going at full pace. The American Steel & Wire Company's plant at Fairfield is also turning out its product in a healthy tonnage while the Tennessee Coal, Iron & Railroad Company's steel mill is striving for the very best in the way of production. The demand in every direction is not denied here. The need for steel, too, is growing. In the next few days preparations will be under way for the starting up of the new steel plants at Fairfield, a foundry and bar mill being included. These will have to receive attention in the way of material.

The new soil pipe plant of the Central Foundry Company, at Holt, Tuscaloosa county will be rushed to completion, the structural work being done by Ingalls Iron Works, a part of the Iron Products Corporation. Universal pipe will be manufactured at Holt.

Presence in the district recently of a high official of the United States Steel Products Company, the export subsidiary of the United States Steel Corporation, is believed to have had some significance and belief is held that there will be steady shipping of the products of the district steel plants of the Corporation on export movements.

The car works of this territory are all well supplied with business and more orders are in sight, viz., the Louisville & Nashville, the Chickasaw Shipbuilding & Car Company, the Virginia Bridge and Iron Company and the Southern Car Works, Gadsden, are all producing steadily besides repairing old equipment.

Coal mine operations in Alabama are steady, the production being around 380,000 tons per week. A general advance in wages, effective March 15-16, averaging 12 1/2 per cent, has

brought general good feeling and there is willingness to co-operate in the best possible production.

The coke market is again very strong and there is need for every ton of the product produced. All by-product plants are in full operation and but few of the bee-hive ovens in condition are cold. Quotations are firm, ranging between \$7.50 and \$8.50 for the foundry product.

The scrap market is also showing strength. Quotations for pig iron and iron and steel scrap follow:

#### PIG IRON

No. 2 foundry, 1.75 to 2.25 pr cent silicon, f. o. b. furnaces, \$25.00 to \$26.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$25.50 to \$26.50; iron of 2.75 to 3.25 per cent silicon, \$26.00 to \$27.00; iron of 3.25 to 3.75 per cent silicon, \$26.50 to \$27.50; iron of 3.75 to 4.25 per cent silicon, \$27.00 to \$28.00; charcoal iron, f. o. b. furnace, \$34.00 to \$35.00.	
Old steel axes.....	\$24.00 to \$25.00
Old iron axes.....	24.00 to 25.00
Old steel rails.....	19.00 to 20.00
Heavy melting steel.....	16.00 to 17.00
No. 1 R wrought.....	20.00 to 21.00
No. 1 cast.....	23.00 to 24.00
Stove plate.....	21.00 to 21.50
Old car wheels.....	21.00 to 22.00
Old tramcar wheels.....	23.00 to 23.50
Machine shop turnings.....	12.00 to 12.50
Cast iron borings.....	12.00 to 12.50
Cast iron borings, (Chem).....	15.50 to 16.00

#### Coke Manufacture Decreased in 1921.

A considerable decrease in the activities of the establishments engaged primarily in the manufacture of coke, both by-product and beehive coke, during 1921 as compared with the year 1919 is reported by the Department of Commerce. The Total value of products reported amounted to \$221,313,400 as compared with \$316,515,800 in 1919, and \$99,275,000 in 1914, a decrease of 30 per cent from 1919 to 1921, but an increase of 123 per cent for the seven-year period 1914 to 1921. Gas-house coke will be included in the report on "Manufactured Gas."

Of the 176 establishments reported in 1921, 84 were located in Pennsylvania; 21 in West Virginia; 12 in Alabama; 11 in Ohio; 8 in Virginia; 6 in Illinois; 4 each in Colorado, Indiana, and New York; 3 each in Kentucky, Michigan, Minnesota, and Tennessee; 2 each in New Jersey and Wisconsin; and 1 each in Georgia, Maryland, Massachusetts, New Mexico, Utah, and Washington.

The statistics for 1921, 1919, and 1914 are summarized in the following statement. The figures for 1921 are preliminary and subject to such change and correction as may be necessary from a further examination of the original reports.

	1921*	1919*	1914*
Number of establishments.....	176	278	231
Operating:			
a.—By-product ovens .....	117	56	...
b.—Beehive ovens .....	59	222	...
Persons engaged .....	19,153	32,852	23,463
Proprietors and firm members .....	27	41	36
Salaries and wages .....	3,086	3,522	2,320
Wage earners (aver. number) .....	16,070	29,319	21,107
a.—By-product ovens .....	12,414	15,553	...
b.—Beehive ovens .....	3,656	13,766	...
Salaries and wages .....	\$32,076,400	\$49,905,100	\$16,946,000
Salaries .....	8,243,400	7,605,800	2,657,000
Wages .....	23,833,000	42,299,300	14,289,000
a.—By-product ovens .....	19,187,800	26,060,600	...
b.—Beehive ovens .....	4,645,200	16,238,800	...
Paid for contract work.....	37,100	81,100	...
Cost of materials .....	168,790,900	224,266,700	69,138,300
a.—By-product ovens .....	146,792,900	146,110,800	...
b.—Beehive ovens .....	21,998,000	78,155,900	...
Value of products .....	221,313,400	316,515,800	99,275,000
a.—By-product ovens .....	191,371,200	204,392,400	...
b.—Beehive ovens .....	29,942,200	112,023,400	...
Value added by manufacture....	52,522,500	92,249,100	30,136,700

\* Figures for 1921 do not include establishments reporting products under \$5000 in value, thus excluding 5 establishments which employed 9 wage earners, and in the aggregate reported products to the value of \$16,600. The figures for 1919, however, include 6 establishments of this class, with 5 wage earners and products to the value of \$19,000; and in 1914, 7 establishments, with 20 wage earners and products valued at \$20,000.

#### To Install Iron Furnace and Develop Ore Beds.

Linden, Tex.—Extensive development of the iron ore beds near here will be started soon by Barringer, Terrell & Johnson of Philadelphia who recently purchased these properties. It is stated that an iron furnace will be installed.



# RAILROADS

## ORDERS FOR 156 LOCOMOTIVES.

### Three Southern Systems' Purchases Total \$7,750,000—Other Equipment News.

Southern Pacific Railway has ordered 40 locomotives from the Baldwin Works.

Atlantic Coast Line has also placed an order with Baldwin's for 50 locomotives.

Southern Railway has ordered 66 locomotives from the American Locomotive Co.

These three orders represent a total business of about \$7,750,000.

Illinois Central Railroad has ordered 1500 automobile cars, 1000 to be built by the American Car & Foundry Co., and 500 by the Western Steel Car & Foundry Co. The road has also ordered 500 automobile-furniture cars from the Mount Vernon Car & Manufacturing Co.

Clinchfield Railway has ordered 10 caboose cars from the Virginia Bridge & Iron Works.

Equipment inquiries recently reported include 1000 box cars and 1000 gondola cars for the Seaboard Air Line and 10 locomotives for the Gulf Coast Lines.

The American Railway Association reports that on February 15 freight cars on order from builders totaled 97,932, an increase of very nearly 30,000 cars since January 1. Orders had also been placed up to the same date for 1915 locomotives, an increase of 470 since January 1. The demand for freight cars is shown by the fact that on February 15 requests for cars in excess of current supply totaled 76,900 cars, an increase of over 4000 cars in a week. The number of freight cars in need of repairs showed a decrease of nearly 2900 since February 1, but the number of locomotives requiring repairs increase 169 in the same period, owing to harder work under winter conditions.

### Southern Pacific Begins Work on Through Line in Mexico.

Julius Kruttschnitt, chairman of the executive committee of the Southern Pacific Railway System, has announced in New York the beginning of work upon an extension of the company's lines in Mexico which will close a gap of 109 miles between Tepic and La Quemada. The cost of this new construction will be from \$8,000,000 to \$10,000,000 and will require, it is estimated, about three years to complete. When it is finished there will be a through line down the west coast of Mexico to Guadalajara, as the Southern Pacific has already a detached link of about 48 miles from La Quemada to Orendain, where connection is made with a 30 mile line of the National Railways of Mexico into Guadalajara. The line through was planned about 20 years ago but has been delayed by revolutionary conditions.

### To Build Coal Mine Spur.

J. C. Sullivan, president of the Pond Creek Coal Co., is quoted in a report from Beckley, W. Va., as saying that a contract has been awarded to build 2 miles of railroad in connection with opening up Mine No. 2 of the company's operations, which are in the Williamson coal field on the Norfolk & Western Railway and adjoin the property recently acquired by Henry Ford.

### Proposed Electric Railway Pensacola to Mobile.

The H. L. Misamore Company, promoters and developers, Box 383, Fairhope, Ala., inform the MANUFACTURERS RECORD that they are now promoting a system of electric roads in Baldwin County, Ala., connecting Mobile, Ala., with Pensacola, Fla.

## Greatly Improved Earnings of the Railroads.

According to their reports filed with the Interstate Commerce Commission the Class 1 railroads of the United States had operating revenues in January totaling \$500,683,400, an increase of about 27 per cent as compared with January of last year, although incomplete reports indicate that there was an increase of nearly 39 per cent in freight traffic during the month, with similar comparison. Operating expenses were \$407,615,000, or 21 per cent more than in January a year ago, net railway operating income being \$60,554,700, or at the rate of a return of 5.54 per cent on an annual basis, upon the tentative valuation of the roads. The net in January of last year was \$29,486,000, or at the rate of an annual return of 2.75 per cent. These figures are based on reports from 192 railroads of Class 1 representing total length of over 235,000 miles. Operating ratio for the month was 81.4 per cent as compared with 85.3 per cent a year ago. It is especially interesting to observe that the rate of annual return in the Southern district during the month was 7.53 per cent or much greater than the average for the whole country. In this district operating revenues increased 31.3 per cent and operating expenses only 18.6 per cent.

## Volume of Freight Continues Unusually Large.

"With loading of revenue freight totaling 830,223 cars for the week ended February 24, freight traffic continues to break all records for this season of the year," says the car service division of the American Railway Association. "The total for the week was an increase of 101,298 cars above that for the corresponding week last year, and 170,581 cars in excess of the corresponding week in 1921. It also exceeded by a considerable margin the corresponding weeks in 1918, 1919 and 1920. Comparisons also show this to be an increase of 12,445 cars above the preceding week this year. The increase over the week before was largely due to heavier shipments of forest products which totaled for the week of February 24 last, 69,891 cars or 10,460 cars above the preceding week. This was, with one exception, the largest number of cars ever loaded with forest products in any one week." Increased loadings continue to be reported from the Southern district, as well as from one or two other districts.

## Cape Fear Railways Expanding.

The Cape Fear Railways of Fayetteville, N. C., propose to build an extension from there to Hope Mills, a distance of 8 miles, which, says C. F. Harris, general manager, in a letter to the MANUFACTURERS RECORD, will serve the following intermediate points: Tolar-Hart Mills, Victory Mills and Puritan Mills; also Cumberland, N. C. It is also proposed and expected to start work in the very near future upon the other end of the line, from Fort Bragg to Manchester, which is on the Atlantic Coast Line Railroad. Another extension from a point on the main line of the Cape Fear Railways will be to Skybo, a distance of 2¼ miles, this extension branching off about 6 miles out of Fayetteville. The Manchester extension will be about 7 miles long. The company expects to begin handling freight and American Railway Express matter March 15.

## Would Issue \$1,000,000 of Bonds.

Chicago, Rock Island & Pacific Railway has applied to the Interstate Commerce Commission for authority to issue \$1,000,000 of 4 per cent general mortgage bonds to reimburse its treasury for additions and betterments.

The annual production of lumber and structural timbers for general building purposes reaches a value of nearly a billion dollars, says the Forest Service of the Agricultural Department, in its annual report.

# LUMBER AND BUILDING MATERIALS

## Lumber Production and Orders Currently Balanced.

Washington, March 8.—While lumber production increased appreciably during the week ending March 3, and the volume of new business declined slightly, the two are still only about balanced—and there is no advance in the direction of reduction of the large surplus of accumulated orders. This fact is emphasized by the falling off in shipments in the past week, according to the weekly statement of the National Lumber Manufacturers Association of the country's lumber movement. While only 368 mills are in the reporting list for the week as compared with a revised total of 407 for the preceding week, the fact that the former produced more lumber is considered auspicious of heavy production when the maximum number of mills are in production.

For all the mills reporting shipments were 110 per cent and orders 99 per cent of actual production. For the Southern Pine Association mills the corresponding percentages were 106 and 98 respectively, and for the mills of the West Coast Lumbermen's Association, 106 and 93. Of the reporting mills, 343 with an established normal production for the week, which is 214,962,661 feet, had an actual production 100 per cent of normal, shipments 109 per cent and orders 99 per cent.

The Southern Pine Association telegraphs from New Orleans as follows:

"With a large proportion of mills operating full time and favorable weather, production of southern pine last week showed an increase of 3.4 per cent over that of the previous week. New orders and shipments decreased slightly but were nearly normal. Production exceeded orders for the first time in many months. The unfilled orders file continues heavy. Some mills report a tightening in car supply, and there is some apprehension felt over the possibility of a renewed car shortage later on."

The mills of the West Coast Lumbermen's Association, rallying from the effects of the recent storm, put production, shipments and orders all over the hundred million mark, representing an increase of about 30 per cent in the West Coast lumber movement over this time last year.

The Western Pine Manufacturers Association reports that four more mills resumed production last week.

The California Redwood Association wires that new business increased 2,500,000 feet over the preceding week.

The Michigan Hardwood Manufacturers Association reports from Cadillac that stocks of dry hardwoods and hem-

lock are low; that large orders are being booked for spring deliveries. Quite a few shipments of hardwoods are being forwarded green from the saw. Nearby embargoes are being slowly lifted. Large stocks are held for shipment to New England points on account of the embargoes, with no hope of early delivery. The car situation is easing up somewhat.

According to the Loyal Legion of Loggers and Lumbermen reporting from Portland, wages in northwest Pacific Coast mills recently have increased approximately five cents per hour in virtually all the lumbering districts of that section.

The lumber movement for the past week, as compared with the preceding week and the corresponding week of 1922, is as follows:

	Past Week.	Corresponding Week 1922.	Preceding Week 1923 Revised.
Mills	368	386	407
Production	226,066,933	177,466,413	210,104,660
Shipments	247,993,547	176,745,070	267,047,823
Orders	223,655,078	176,022,065	230,007,309

The following figures record the lumber movement for the first nine weeks of 1923 and for the same period in 1922:

	Production.	Shipments	Orders
1923	1,807,390,488	2,214,967,274	2,453,307,770
1922	1,581,097,472	1,510,136,171	1,574,034,502
1923—Increase	226,293,016	704,831,103	879,273,268

## Report on Southern Pine.

The Southern Pine Association for the week ended March 2 reports as follows on 126 mills:

	Cars.	Feet.
Orders on hand beginning of week	20,086	438,035,488
Orders received during week	3,377	73,645,616
Total	23,463	511,681,104
Shipments during week	3,630	79,163,040
Orders on hand end of week	19,833	432,518,064

Production for the week was 75,020,784 feet. Shipments were 4,142,256 feet above production or 5.52 per cent, and orders were 1,375,168 feet below production or 1.83 per cent. Orders were 6.97 per cent or 5,517,424 feet below shipments. The week was 5.91 per cent or 4,714,877 feet below normal production, and orders were 7.64 per cent or 6,090,045 feet below normal production. The decrease in "orders on hand" amounted to 5,517,424 feet or 1.26 per cent.

## LUMBER MOVEMENT FOR NINE WEEKS, AND FOR THE WEEK ENDING MARCH 3.

	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
<b>Southern Pine Association:</b>						
Total	682,848,421	663,314,192	770,277,054	582,623,231	866,197,290	612,138,289
Week (126 mills)	75,020,784	71,422,345	79,163,040	66,060,550	73,645,616	68,015,875
<b>West Coast Lumbermen's Ass'n.:</b>						
Total	770,975,712	683,526,477	930,303,849	616,263,008	978,193,333	592,995,714
Week (138 mills)	109,233,893	79,776,172	116,089,292	76,131,089	101,550,028	67,300,390
<b>Western Pine Mfrs. Ass'n.:</b>						
Total	112,115,000	76,548,000	215,278,000	156,468,000	217,325,000	169,075,000
Week (36 mills)	16,207,000	10,025,000	24,188,000	19,523,000	23,525,000	17,525,000
<b>Calif. White &amp; Sugar Pine Mfrs.:</b>						
Total	22,940,000	16,257,000	52,977,000	28,640,000	124,841,000	55,533,000
Week	No report	No cut		1,344,000		1,655,000
<b>Calif. Redwood Ass'n.:</b>						
Total	64,940,000	53,036,000	79,526,000	52,816,000	103,732,000	62,806,000
Week (14 mills)	8,035,000	6,573,000	10,589,000	4,745,000	10,713,000	8,319,000
<b>North Carolina Pine Ass'n.:</b>						
Total	68,970,455	72,874,803	75,581,671	57,556,932	76,855,147	65,082,499
Week (29 mills)	5,577,156	8,524,896	5,204,115	7,201,431	3,765,434	11,439,800
<b>Northern Hem. &amp; H'wood (Sftw'd):</b>						
Total	19,926,000	15,541,000	19,125,000	15,769,000	20,789,000	16,404,000
Week (16 mills)	1,569,000	1,145,000	1,949,000	1,650,000	1,498,000	1,767,000
<b>Northern Pine Mfrs. Ass'n.:</b>						
Total	64,674,900		71,898,700		65,382,000	
Week (9 mills)	7,207,100		8,803,100		6,878,000	
<b>General total for 9 wks. (Sftw'd):</b>	1,807,390,488	1,581,097,472	2,214,967,274	1,510,136,171	2,453,307,770	1,574,034,502
<b>Northern Hem. &amp; H'wood (H'dwood)</b>						
9 weeks	29,366,000		24,978,000		24,504,000	
General total for week	226,066,933	177,466,413	247,993,547	176,745,070	223,655,078	176,022,065



### Lumber Company Purchases 22,560 Acres Hardwood Timber Land in Mississippi Delta—Will Develop.

Valley Park, Miss.—Following the incorporation of the W. W. Gary Lumber Company with a capital stock of \$800,000, W. W. Gary, Hollandale, Miss., president, the new company has purchased 22,560 acres of virgin hardwood timber land in the Mississippi delta, the tract being located east of Valley Park extending east to the Yazoo and Little Sunflower rivers.

A contract will be let as soon as possible for the construction of a modern bandmill and resaw, with a daily capacity of 70,000 feet, the plant to be ready for operation by June 15. The building of a spur track from Valley Park into the timber, which consists of gum, oak and other hardwoods, is already under way.

The company also requires a single bandmill at Percy, Miss., and a small block of timber south of that point, and when this tract has been cut, it is stated the mill will operate on logs purchased on the open market. It is estimated that the mill at Valley Park will have a continuous run of ten years before the timber on the new tract is exhausted.

Officers of the W. W. Gary Lumber Company, in addition to Mr. Gary, include Frank A. Conkling, first vice president; E. A. Neely, second vice president, and W. V. Fant, secretary-treasurer.

### Common Brick Production at High Level.

The winter production of brick is at the highest mark in recent years, according to the Monthly Digest of the Common Brick Manufacturers' Association of America, with nearly one-third of the brick plants of the country shut down, largely for seasonal reasons.

The number of brick produced in January by 90 plants reporting was 53,718,000. Over 71,000,000 were moved from plants during January; the amount of brick on hand was decreased from the January 1 figure by nearly 40,000,000 and there is an even greater decrease in the amount of unburned brick, while the orders on the books have increased since January 1. This a most satisfactory condition from the point of view of the brick man.

Manufacturers, as a rule, anticipate they will be able to sell brick during the 1923 building season at prices no higher than those ruling in 1922, although the demand may be greater and the supply in some sections inadequate.

### Southern States Consider Federal Forestry Bills.

President Harding's recent stand for a Federal forestry bill indicates the trend of thought in various States as shown by the introduction of bills in the legislatures of Oklahoma, Arkansas, and South Carolina providing for the creation of State boards of forestry, says the Forest Service of the Agricultural Department.

The bills provide for boards whose membership shall be nonpartisan and representative of interests concerned with forestry. Cooperation with farmers and private timber owners, a fire protective organization, and educational publicity work furthering forestry are the specific objectives.

### Fewer Orders for North Carolina Pine.

The North Carolina Pine Association reports as follows on 49 mills for the week ending March 3:

	Total Feet
Orders .....	7,827,434
Shipments .....	9,577,141
Production .....	9,653,656
Normal Production .....	10,356,000

The orders were 18 per cent below shipments, 19 per cent below actual production and 24 per cent below normal production. Shipments were 8 per cent below actual production and 8 per cent below normal. The actual production was 7 per cent below normal. The week shows a decrease in orders compared with last week of 2,001,889 feet or 21 per cent.

### Increased Car Loadings Reflect Prosperous Conditions in Lumber Industry.

An indication of the prosperous condition of the lumber industry and the large manufacturing program which is being undertaken throughout the United States can be obtained by a glance at the figures of shipments of forest products for the first six weeks of the year 1923 which show an increase of 43,493 cars over the peak year 1920 for the same period, according to figures compiled from the car loading reports by the Southern Hardwood Traffic Association.

"These figures give some idea of the volume of business that the railroads are moving for the shipper of forest products and show the need for equipment to keep up with the ever increasing demand for lumber," says J. H. Townshend, secretary-manager of the association. "With the loadings so heavy for the first few weeks of the year it is certain that the lumber industry will ship more cars in 1923 than ever before in their history."

Total shipments of forest products for the first six weeks of the year 1923 were 399,918 which shows an increase of 111,707 cars over the same period in 1922; 107,376 over the same period in 1921; 43,493 cars over the same period in 1920, the peak year; and 67,620 cars over the same period in 1919; which is as far back as records are available.

The heaviest loadings for forest products on record up to this year for one week was 67,428 cars for the week ending March 24, 1920. This record has already been surpassed for four of the six weeks of the year 1923.

A comparison of the loadings for the first six weeks of 1923 with the same periods in 1922 and in 1920 follows:

Week.	1923.	1922.	1920.
First .....	57,530	40,710	58,542
Second .....	68,632	48,195	59,014
Third .....	70,066	49,992	58,720
Fourth .....	69,613	46,959	58,081
Fifth .....	69,767	49,717	60,356
Sixth .....	64,310	52,638	61,712
Totals .....	399,918	288,211	356,425

The peak year, 1920, showed a total of 3,057,730 cars loaded with forest products which was only a little over 100,000 cars more than the total loading for 1922 and it bids fair to be considerably less than the totals for 1923, based on the loadings for the first few weeks of the year.

### Purchases 19 Lumber Yards at Cost of \$500,000.

El Paso, Tex.—Negotiations for the purchase by the Foxworth-Galbraith Lumber Company of El Paso of 19 retail lumber yards from the Lyon-Gray Lumber Company of Dallas for a total consideration of \$500,000 have been concluded. The yards are located along the lines of the Texas & Pacific, the Missouri, Kansas & Texas, and the Santa Fe railroads in the following towns: Denton, Gainesville, Gunter, South Mayde, Lewisville, Belcherville, Bonita, St. Joe, Nocona, Ringgold, Petrolia, Henrietta, Whitesboro, Collinsville, Tioga, Pilot Point, Krum, Sanger and Howe.

The Foxworth-Galbraith Lumber Company has yards in West Texas, New Mexico and Arizona and is one of the largest lumber companies in the West. W. L. Foxworth is president.

### Lumber Men to Meet and Form New Organization of Wholesalers.

The annual meetings of the National Wholesale Lumber Dealers Association and the American Wholesale Lumber Association will be held at Pittsburgh, Pa. on March 21 and 22. At that time the membership of both associations will be asked to ratify in formal manner the recent action of their respective boards, looking toward the merger of the two associations. There will thus come into existence a new wholesale lumber organization of about 700 membership.

The Southern Pine Association and the National Lumber Manufacturers' Association will hold their annual meetings in New Orleans, La., from March 19 to 24.

## GOOD ROADS AND STREETS

### Twenty-Five Road and Bridge Projects in West Virginia to Cost Nearly \$3,000,000—Contracts Awarded for 157 Miles of Road.

Charleston, W. Va.—Contracts for road and bridge work have been awarded by the State Road Commission, E. B. Carskadon, Secy., involving a total of 157.3 miles of road, 2 bridges and one overhead crossing at an aggregate cost of nearly \$3,000,000. This work is as follows: Overhead crossing at Witcher, in Kanawha County, Wiseley Clark Construction Co., Waynesboro, Va., contractor at \$42,951; Tannery Bridge in Grant County, Wiseley Clark Construction Co., contractor for substructure at \$4653, and E. R. Mills, Newport, Ky., contractor for superstructure at \$9497; Linn Bridge, in Gilmer County, etc., J. Wallace, Kitzmiller, Md., contractor for substructures at \$7606, and E. R. Mills, for superstructure at \$7097.

For surface treating 32 miles of road in Mercer County, the Good Roads Co. of Philadelphia, Pa., was awarded contract at \$18,232, and for surface treating 4.5 miles in Mason County, the same firm was awarded contract at \$4284. Janutolo & Co., of Fayetteville, W. Va., received contract at \$197,231, for the construction of 3.9 miles in Fayette County, and the Echols Construction Co., of Marlinton, W. Va., at \$56,277 for the construction of 4.1 miles in Boone County.

For building 3.1 miles in Greenbrier County, the Sutton Construction Co., of Ashland, Ky., received contract at \$98,034, and the Lookout Construction Co., of Lookout, W. Va., at \$34,630 for building 3.8 miles in Nicholas County. Messinger & Hagar, of Huntington, W. Va., were awarded contract at \$80,435, for building 4 miles in Clay County, and C. F. Waugh, of Williamson, W. Va., at \$254,680 for building 16 miles in Mercer County.

Contract was let to the Smith Construction Co., of Youngstown, Ohio, at \$216,280, for building 7 miles in Lincoln County, and to G. T. Fogle & Co., of Charleston, at \$360,150, for building 9 miles in Ritchie County, and at \$75,352 for 1 mile in Ohio County.

Contract for the construction of 15.4 miles in Wood and Wirt counties, was awarded to Connell, Laub & Bracht, of Dayton, Ohio, at \$482,057, and for 11.8 miles in Tyler and Pleasants Counties, to the same firm at \$129,890. The Keeley Construction Co., of Clarksburg, W. Va., was awarded contract at \$30,340, for 3 miles in Wetzel County, while the Salem Bridge & Construction Co., of Salem, W. Va., received the award at \$55,659, for 1.5 miles in Harrison County. Contract to build 2.2 miles in Webster County, was let to H. H. Bruffy, of Webster Springs, W. Va., at \$36,410. Mr. Bruffy also receiving contract to build 4 miles in Preston County at \$61,019.

Contracts were awarded to Fucy Bros. and Tully Construction Co., of Weston, at \$267,292 for the construction of 6.5 miles in Lewis County, to Dayton Construction Co., of Elkins, W. Va., at \$76,503 to build 9 miles in Grant County and for the construction of 10.5 miles in Mineral County and 5 miles in Hampshire County, to Russell & Gray, of Youngstown, Ohio, at \$206,028.

### Baltimore Will Build Phoenix Road.

The Board of Awards, Baltimore, will receive bids until March 21, at the office of the City Register, for the construction of Phoenix road, contract No. 64, for the Water Department. William A. Megraw is the water engineer. The work will involve 10,000 cubic yards of earth excavation and embankment and 5200 square yards of concrete roadway. Plans and specifications may be obtained at the office of the water engineer.

### State Roads Commission Plans 39 Improvement Projects in Maryland—Program Outlined for 1923.

As recommended for adoption by John N. Mackall, Director of Public Works, the State Roads Commission, with offices in Baltimore, has selected 39 roads for improvement this year, located in various Maryland counties. These include 1 mile of the Iglehart road, 2 miles of the Mayo road, 2 miles of Shadyside road, and surfacing 2.86 miles of Defense Highway, all in Anne Arundel County. In Baltimore County, the Philadelphia road will be improved to the Harford County line, the Hereford road, from Mt. Carmel toward the White House, and 1.5 miles of Eastern Ave., from Chase toward Baltimore.

The Broomes Island road will be continued as will the Holland Point road, both in Calvert County. It is planned to construct 2 miles of the Blackwater road, 1 mile of the Cambridge-Lloyds road, and 1 mile of the Eldorado-Finchville road, all in Dorchester County, and in Frederick County, 1 mile of road will be constructed from Furnace Ford bridge to the Montgomery County line, 1 mile, extending north from Myersville, 2 miles through Oak Orchard to the Carroll County line, 1 mile from end of road already under contract, south of Middletown, 2 miles from Urbana toward Hyattstown, 1 mile from Thurmont, toward Rocky Ridge, and 1 mile from Emmitsburg west to the State line.

A portion of the Friendsville road in Garrett County, which has been graded, will be surfaced, while the Gortner-Red House road and the Luke-Bloomington road will be improved. In Harford County, improvements will be made to the Philadelphia road, Shawsville-Norrisville road, and the Jarrettsville-Federal Hill road, and in Kent County the Massey-Millington road will be improved to Millington Bridge, as will the Chestertown-Pomona road, beginning at the limits of Chestertown. Four miles of the Piney Point road, 3 miles of the Three-Notched road, and 3 miles of the Chaptico-Budds Creek road, all in St. Marys County, will be improved.

In Somerset County, the Princess Anne-Deals Island road will be improved and in Washington County, improvements will be made to the Hagerstown-Sharpsburg, Hagerstown-Smithburg, Hagerstown-Leitersburg, Hagerstown-Cearfoss, Beaver Creek, and the Hagerstown and Downsview pikes. The Delmar road in Wicomico County, from the north end of the present concrete construction to the southern corporate limits of Delmar, will be improved, as well as the Salisbury-Nanticoke road from the end of the present concrete construction to Gales lane, the Moore's Corner-Fruitland road from Salisbury, and the Allen State road at Moore's Corner through Fruitland to the beginning of the Fruitland-Meadow Bridge road at Long's Corner.

### Bridge and Culvert Contracts Total Nearly \$414,000.

Liberty, Tex.—Contracts have been awarded to The Kenyon Dredging Co., of Houston, and The Tibbetts Construction Co., of Fort Worth, on a combination bid of nearly \$414,000, for the construction of embankments, culverts, and bridges on a 34-mile concrete highway through Liberty County.

Contract for the dredging work was let to the former company and for the bridge and culvert work to the latter firm, which in turn assigned the work to the Austin Bros. Bridge Co., of Dallas. Of the total, \$196,145 will be expended for the dirt work, and \$217,690 for the bridge and culvert construction. The cost of the road will be borne three-fourths by state and federal aid, while Liberty County will pay for the rest.

Contract for surfacing with concrete 18 feet wide, will not be let until later.



### Bids Invited for Roads in Mississippi.

Jackson, Miss.—The construction of a gravel road in Issaquena county between Mayersville and Rolling Fork is contemplated in an invitation by the State Highway Commission for construction bids until March 20. The Commission will also receive bids until March 22 for a gravel road in Lauderdale County, on the Mississippi Valley Highway south of Meridian, and on April 3, for about 2 miles of concrete or equivalent paving in Harrison County near Gulfport.

Other roads for which bids will probably soon be invited include the construction of a road in Leake County, between Carthage and Philadelphia; gravel road in Warren County, north of Vicksburg, in Holmes County, between Lexington and Durant, in Tate County, between Hernando and Sardis, one across Tallahatchie River bottom in Lafayette County, on the road between Oxford and Holly Springs; one between Charleston and Grenada County, and one on the Jackson Highway in Pearl River County.

H. C. Dietzer, is the State Highway Engineer with offices in this city.

### Logan County Will Vote on \$600,000 Road Bonds.

Logan, W. Va.—Acting on a petition presented by a number of citizens, Logan County Court has ordered an election for March 31 on \$600,000 bonds for the improvement of county highways. In addition to this amount, \$472,000 will be secured from the state road funds, \$327,000 being available at present.

Roads to be improved include the following: Henlawson-Lincoln County road, 14 miles, cost \$350,000; Stollings-Blair road, 8 miles, \$200,000; Stirratt-Mingo County line, 7 miles, \$150,000; Stollings to Rum Creek, 4 miles, \$80,000; Man to Wyoming county line, 7 miles, \$140,000; complete road between Rum Creek and Man, \$20,000.

The County Court also plans construction which is not designated as state routes, including Peach Creek bridge substructures to cost \$15,000, and a road from Monitor Junction to Holden to cost \$113,000.

### Governor Pinchot Suggests Interstate Road Plan.

Atlanta, Ga.—In a letter to the Governor of Georgia, directing attention to a conference of highway officers of the several states at Harrisburg, Pa., on March 23 and 24, Governor Gifford Pinchot of Pennsylvania, suggests that the various states should begin to work out a road construction and maintenance program without regard to state lines, but rather on a nation-wide basis.

Governor Pinchot suggests the desirability of a general interchange of information between states on questions such as these and this subject will have a conspicuous place at the conference, the purpose of which will be "to consider the policy and practice of state highway construction, methods of state highway maintenance, and the whole problem of traffic regulations, with special reference to cooperation between states in such regulations."

### Bids Opened for Two Virginia Roads to Cost \$302,000.

Tasley, Va.—Bids have been opened by the State Highway Commission, H. G. Shirley, Chairman, Richmond, for the construction of two roads in Accomac County, the two bids reaching a total of \$302,033. For building 6.1 miles of concrete road south of Tasley on project No. 221, Henry W. Roberts, of Clara, Md., is the lowest bidder, at \$198,812. This road will be 18 feet wide, 8 inches thick on the side, and 6 inches in the center.

The Harrison Engineering & Contracting Corporation, of Buffalo, N. Y., is the low bidder at \$103,221, for the construction of 2.9 miles of concrete road 6 inches in the center, and 8 inches on the side.

### Mecklenburg County Lets \$257,000 Road Contract.

Charlotte, N. C.—Contract has been awarded by the Mecklenburg County Highway Commission, at \$257,344, to the Noll Construction Company, of Lexington, N. C., for building three sections of road, totaling 12.3 miles. The three projects include 4.3 miles, from Cornelius to the Beaty's Ford Bridge, involving construction of base and header and asphalt top, at \$105,639; for constructing base and header and placing asphalt top on 4 miles on 32nd Street and old poor house road, \$110,705, and for placing an asphalt top on 4 miles of the Derita road, macadam base for which has already constructed, \$41,000.

### Awards Contracts for \$500,000 in Paving.

Washington.—Contract has been awarded by the District Commissioners for paving 140,000 square yards of roadways with cement concrete, at a cost of \$500,000. The Cranford Company of this city secured the contract.

Colonel Chas. Keller is the Engineer-Commissioner of the District and Major R. A. Wheeler, is the assistant. C. B. Hunt is the Engineer of Highways.

## TEXTILE

### Additional Arcadia Mill to Cost Over \$500,000.

Spartanburg, S. C.—The Arcadia Mills Company, whose plant is located in the northwestern suburbs of Spartanburg, will build another mill at once at a cost of more than \$500,000 according to an announcement of H. A. Ligon, Jr., vice president and general manager. A new mill village will be located on the opposite bank of Fairforest Creek, a quarter of a mile from the present Arcadia mill, and work on the dwellings has already begun. Before the end of the year it is expected that the new plant will be in operation, employing from 300 to 400 hands. Its initial equipment will include 20,000 spindles.

The present Arcadia mill of which Dr. H. A. Ligon, Sr., of this city, is president, was built in 1902 and equipped with 12,000 spindles. It has since been increased to 34,000 spindles and produces annually 15,500,000 yards of fine sheetings.

### Contracts for Fire Protection and Humidifying Equipment.

In connection with the erection of mill No. 3 at Great Falls, S. C., for the Republic Cotton Mill, contract for which was reported in the MANUFACTURERS RECORD of March 1, work is proceeding rapidly and contracts have been awarded to the Parks-Cramer Company of Charlotte, N. C., for fire protection and an improved type of humidifying equipment, together with automatic regulation. Mills Nos. 1 and 2 are already so equipped.

Potter & Shackelford, Inc. of Greenville, S. C., are the contractors for the erection of this mill and J. E. Sirrine & Company, also of Greenville, are the engineers. The cost of the buildings will be about \$450,000, space being provided for 1000 looms.

### Additional Bleachery Unit to Cost \$180,000.

Chickamauga, Ga.—Contract has been awarded to Batson-Cook Company of Columbus, Ga., by the Crystal Springs Bleachery Company for building an additional bleachery unit at its plant here to cost about \$180,000. This unit will be 400 by 135 feet, a portion of the building to be two stories. It will be of slow-burning construction, with brick walls, steel sash, composition roof and concrete floors.

### **\$1,000,000 Company to Build Cotton Mill at Eagle Lake.**

Eagle Lake, Tex.—As the first definite step for the establishment of a cotton mill in Colorado County, organization has been effected of the Industrial Cotton Mills, with a capital stock of \$1,000,000, to build a mill at Eagle Lake for the production of high class goods. It is the plan of the company to perfect its organization and dispose of the stock that will be available to the public, before commencing building activities. If conditions warrant, a series of mills will be built at or near Eagle Lake to take care of every product made from raw cotton. Officers of the company are J. A. Dromgoole, president; G. W. Keith, vice president and general manager; B. H. Faber, secretary, and J. G. Thomas, treasurer.

### **Changes Name and Authorizes Capital Increase from \$125,000 to \$500,000.**

Worthville, N. C.—An amendment to the charter of the Riverside Mills, Inc., has been adopted, changing the name to the Leward Cotton Mills, Incorporated, and increasing the authorized capital from \$125,000 to \$500,000. There will be no change in the personnel of ownership or of officers. The company will erect an addition to its plant for the accommodation of 5000 more spindles and 150 additional looms. Some machinery has already been contracted for and the rest will be purchased as soon as details can be worked out.

Lockwood, Greene & Company are the engineers and are handling the work through their Charlotte office.

### **Plans Weave Shed With Capacity of 350 Looms.**

Forest City, N. C.—Plans for a weave shed to have an ultimate capacity of 350 looms, which will be erected here by the Alexander Manufacturing Company, have been prepared by J. E. Surrine & Company, of Greenville, S. C. The building will be one story, of daylight construction, except one end which is to be 2 stories, and on the second floor of this portion space will be provided for spooling, warping and slashing. The plant will be used for the production of wide sheeting.

### **Improvements for Aurora Mill.**

Burlington, N. C.—The Aurora Cotton Mill here will undergo some important improvements, plans for which are being made by J. E. Surrine & Company of Greenville, S. C. At present partly electrically driven and partly steam driven, the mill will be completely electrified and power purchased.

The dye plant will be revamped and an office and storage building will be erected.

### **Gibson Manufacturing Company to Build Addition.**

Concord, N. C.—Lockwood, Greene & Co. of Atlanta have been engaged through their Charlotte office to design a large addition which the Gibson Manufacturing Company will build to its plant here. The improvements will consist of a finishing plant and the installation of additional power facilities.

### **Purchases Edenton Hosiery Mill.**

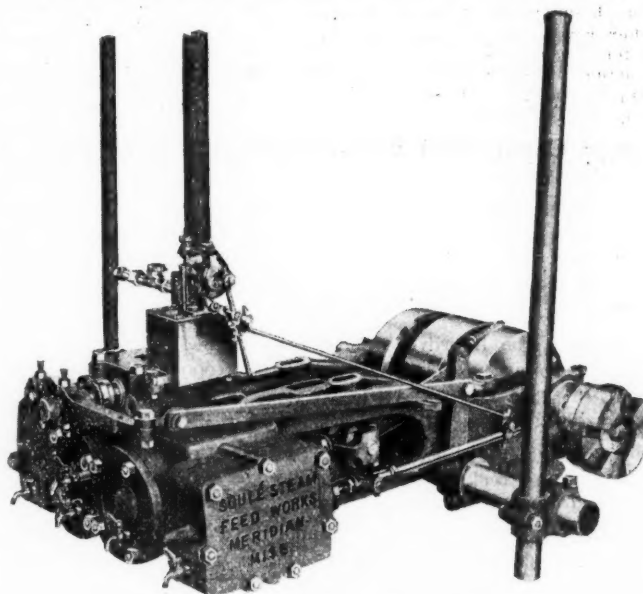
Edenton, N. C.—The purchase of the Edenton Hosiery Company mill by C. O. Robinson of Elizabeth City, has been announced. Mr. Robinson, it is stated, plans to provide additional capital and operate the mill as soon as the machinery can be overhauled and living quarters provided for employees.

J. E. Surrine & Company of Greenville, S. C., are preparing plans for a bleaching, dyeing and finishing plant at Spindale, N. C. for the Stonecutter Mills Company.

## **MECHANICAL**

### **Steam Feed for Small Sawmills.**

A steam feed for sawmills of limited boiler capacity that is being manufactured by the Soule Steam Feed Works, Meridian, Miss. is shown in the illustration herewith. This new device has been practically used in a dozen instances to test it out under working conditions and it will be of advantage to many mills which do not have sufficient steam power to spare for the usual steam feeds. Some plants have boilers only large enough to supply steam for the main engine and have had to use friction and belt feeds, although they might have preferred steam feeds to expedite produc-



THE TWIN STEAM FEED ENGINE.

tion. Now they will be able to install a steam feed that will be capable of operation within the capacity of the boiler, and thus enjoy advantages like those of larger mills.

This engine has been named by the builders the "Spec-D-Twin" and it is a development out of their thirty years of experience in building steam feeds for small and medium sized sawmills. It is furthermore guaranteed just as are the other products of these works. They report that one mill owner said that one of these new engines paid for itself in his plant in less than a month and they further state that when using them there is no loss of time due to breakdowns. Besides it is not expensive.

When used as a sawmill feed this twin engine consumes, it is stated, from 1 to 4 horse power of steam and under 100 pounds steam pressure and at 300 revolutions per minute it develops about 16 horse power. It is compact, strong and speedy. Its weight is 630 pounds. The builders also state that the main frame is built for strength and durability and it is designed to give a straight line thrust. Steam and exhaust passages and both cylinders are integral with the frame which insures alignment of bearings and there are many less joints to keep tight; the balanced crankshaft insures smooth running and little vibration. Cylinders are 5 inches in diameter and 6 inches stroke, double acting. There is a force pump lubricator and the engine gets oil always when running and only when running, which saves oil. The engine is thoroughly built throughout.

The engine is used not only by sawmills on either pine or hardwoods, but in sawn veneer mills, plants cutting short slabs, flitches, etc. It is suitable for any purpose requiring a reversible, hand-controlled engine.



# Construction Department

## EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

## DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

### Bridges, Culverts and Viaducts.

Fla., Palatka.—Putnam County Commrs. plan building concrete bridge across St. Johns River; 25 ft. wide; load capacity of 40 tons; jack knife draw; concrete arch construction; 19-ft. roadway; Chas. Mortland, Engr.; contemplates voting on \$375,000 bonds. (Lately noted.)

Ga., Augusta.—For full details see Road and Street Construction.

Ga., Rome.—Floyd County, A. A. Simonton, Dist. Highway Engr., plans building 450-ft. bridge across Armuchee Creek, 8 mi. from Rome; \$30,000; Federal Aid.

Ga., Thomasville.—State Highway Comsn., Atlanta, let contracts to Municipal Engineering & Construction Co., Atlanta, at \$9986.71 to construct overhead bridge and 3 culverts near city limits of Thomasville; State Highway Dept. to furnish cement.

Ky., Whitesburg.—Champion Bridge Co., Wilmington, Ohio, received contract at \$10,000 to build bridge across North Fork of Kentucky River, at Whitesburg, to connect Lewis Addition with Collins-Harvie Land Co.'s property.

La., Madisonville.—For proposal details see Mchy. Wanted—Roadway and Bridge Construction.

Mississippi.—State Highway Dept., Jackson, Miss., will receive bids until Apr. 2, for 2 bridges in Clarke County, between Meridian and Laurel.

Mo., University City.—For full details see Sewer Construction.

N. C., Charlotte.—For proposal details see Mchy. Wanted—Culvert Construction.

N. C., Fayetteville.—For proposal details see Mchy. Wanted—Bridge Construction.

Okl., Oklahoma City.—For full details see Road and Street Construction.

S. C., Charleston.—Charleston County Sanitary & Drainage Comsn., let contract to Charleston Foundation Co., at \$75,566.50 to build bridge over Burton's Creek between Navy Yard and port terminals; plans inviting bids in May to build concrete bridge over Ashley River; city to pay \$125,000 and federal aid \$350,000; Jas. L. Parker, Engr.

S. C., Converse.—State Highway Dept., Columbia, S. C., let contract to P. S. Manus, Spartanburg, at \$73,541 for 24-ft. reinforced concrete bridge over Pacolet River on S. H. No. 8, between Spartanburg and Gaffney; contract conditional on approval of Spartanburg Highway Comsn.

Tex., Richmond.—Fort Bend County will let contracts soon for bridge across Brazos River at Richmond; also plans repairing bridges at Rosenberg and Orchard, and constructing additional 160-ft. span on eastern end of present structure at East Bernard; C. H. Kendall, County Engr.

West Virginia.—State Road Comsn., E. B. Carskadon, Secy., Charleston, W. Va., let con-

tracts for 3 bridges as follows: Kanawha County, Witcher Overhead Crossing over New York Central lines; 440-ft. concrete structure including encased steel girder over tracks, to Wiseley Clark Construction Co., Waynesboro, Va., at \$42,951.80; Grant County, Tannery Bridge over Lunice Creek; 130-ft. steel through truss, to Wiseley Clark Construction Co., at \$4653.50, for substructure, and to E. R. Mills, Newport, Ky., at \$9497, for superstructure; Gilmer County, Linn Bridge over Leading Creek; 100-ft. steel through truss, Ashland masonry, to Pete J. Wallace, Kitzmiller, Md., at \$7606, for substructure and to E. R. Mills, at \$7097, for superstructure. (Lately noted.)

W. Va., Logan.—For full details see Road and Street Construction.

W. Va., Mannington.—J. M. Barrack, Mayor, will receive bids soon for 2 bridges across Buffalo Creek and Pyles Fork at Buffalo and Clarksburg Sts.

### Canning and Packing Plants.

Ala., Birmingham.—E. P. Allen & Co., Inc., 2315 1st Ave., E. P. Allen, Prest., will install sausage machinery, opens bids in about 60 or 90 days. (See Mchy. Wanted—Sausage Machinery.)

Fla., Lakeland.—Lakeland branch of Florida Citrus Exchange let contract to Marshall & Jackson, at \$48,993 to erect packing house; Spanish style of architecture; 2 stories covering ground space of 100x140 ft. with 3 story office annex; structural steel frame work with 100 ft. clear span trusses and double faced tile walls; capacity for handling 10 cars of citrus fruit daily.

N. C., Manteo.—Virginia Dare Sea Food Corp., capital \$25,000, chartered by J. W. J. A. and H. C. Rollins.

N. C., Wilson.—Wilson & Co., Chicago, Ill., will establish cold storage and icing plant at east end of South St.; cost of plant and equipment \$18,000.

Tenn., Rogersville.—Mosely & St. Clair of Roanoke, Va. have leased building and will establish tomato canning plant.

Va., Weems.—A. H. Harding & Co., Inc., capital \$25,000, inceptd. with W. A. Doggett, Prest.; A. H. Harding, Secy.

### Clayworking Plants.

Ky., Chinnville.—Kentucky Refractories Corp., Clyde K. Turtle, Prest., Ironton, Ky. will erect \$75,000 refractories plant; building will occupy 12 acres of land; electrically operated; will mfr. furnace lining and general purpose brick.

Va., Big Stone Gap.—Big Stone Gap Brick & Tile Co., Inc., capital \$100,000 inceptd. with W. W. Taylor, Prest.; I. C. Taylor, Secy.; mfr. clay products.

### Coal Mines and Coke Ovens.

Ky., Blackey.—Marian Coal Co., G. P. Morrison, Prest., 703 City Bank Bldg., Lexington, Ky., has 800 acres coal land under develop-

ment, daily output 800 tons; increased capital from \$200,000 to \$400,000.

Ky., Frankfort.—Heidelberg Coal Mining Co., inceptd. by T. T. Brandenburg, John D. Rawlings, and others.

Ky., Fed.—Squire Elkhorn Coal Co., capital \$20,000, inceptd. by R. L. Brown, W. P. Hays and Wm. Mullins.

Ky., Hazard.—Columbus Mining Co., A. L. Allais, Prest., McCormick Bldg., Chicago, Ill., reported to construct conveyor in the Hazard field of Kentucky; remodel tippie of mine No 6 and install shaker screens and picking tables; Allen & Garcia, Engrs.

Ky., Jackson.—Frozen Creek Coal Co., capital \$12,000, inceptd. by S. B. Williams, M. F. and Elihu Reynolds.

Ky., Madisonville.—Dempster Construction Co., Geo. R. Dempster, Prest., Knoxville, Tenn., has 2000 acres coal land at present and more later in the year; daily output over first tippie 2000 tons; purchased portion of mchy.; W. R. Walker, Const. Engr., Steubenville Ohio. (Lately noted.) (See Mchy. Wanted—Mining Equipment; Portable Houses.)

Ky., Whitesburg.—The Ace Coal Co., capital \$50,000, inceptd. with A. B. Ewan, Mgr., taken over Caudill Coal Co., will make improvements and extensions.

Md., Baltimore.—Equitable Fuel Co., 307 Maryland Trust Bldg., increased capital by \$10,000.

Va., Pulaski.—High Carbon Coal Corp., capital \$150,000, inceptd. with Clyde E. Smith, Prest.; H. V. Smith, Secy.

W. Va., Buckhannon.—Menard-Talbott Coal Co., capital \$15,000, inceptd. by A. M. Mennard, C. A. Winchester, O. S. Talbott.

W. Va., Fairmont.—Stanfield Coal Co., capital \$1,700,000, inceptd. by M. W. Ogden, C. F. Crane and M. C. Lough.

W. Va., Fairmont.—Riverside Coal Co., capital \$150,000 inceptd. by Thos. W. Brockman, Fairmont, Geo. W. Simpson, Johnstown, Pa., Glenn Hunter, Morgantown, W. Va.

W. Va., Logan County.—Crystal Block Coal & Coke Co., J. C. Thomas, Prest., Bramwell, W. Va., has under development 1200 acres coal land; will erect steel plant and tippie.

W. Va., Fayette County.—Flynn Coal & Coke Co., capital \$50,000, organized by Daniel A. Flynn, St. Elmo, James Flynn and J. A. S. Guthrie both Charleston; develop coal lands at Sunnyside.

### Cotton Compresses and Gins.

Miss., Greenwood.—Greenwood Compress & Storage Co., will improve plant; increase capacity; install sprinkler system, etc.

N. C., Carthage.—Graves Co. will erect cotton gin and grist mill, electrically equipped.

Okl., Grandfield.—Farmers' Co-Operative Gin Co., capital \$25,000, inceptd. by W. O. Maloney, W. E. Hoover and H. F. Clemmer.

### Drainage Systems.

Mo., Bloomfield—Mengo Drainage Dist. of Stoddard County being organized to reclaim 31,000 acres, including the valley of St. Francis river. Address Stoddard County Comms. Tex., Houston—For full details see Sewer Construction.

### Electric Light and Power Plants.

Ala., Collinsville—Collinsville Light & Power Co., Walter T. Weaver, Mgr., will install about July 1 turbine water wheel and governor, 1 alternator and exciter. (Lately noted)

Ark., Hermitage—M. C. Sanders has franchise to install electric light plant.

Ark., Malvern—Arkansas Light & Power Co., Pine Bluff, will expend \$15,000 in construction of 3 dams and power stations on Ouachita River between Malvern and Hot Springs.

Fla., DeLand—For full details see Road and Street Construction.

Ga., Atlanta—Georgia Railway & Power Co. plans to expend \$18,068,000 for development program covering period from 1923 to 1926 inclusive; will construct 4 new water power plants; 2 new ones and the Tugalo and Mathis-Tallulah plants to be under construction simultaneously; 2 other new ones to follow in succession; construction to begin on two new plants in summer, on Tallulah or Tugalo rivers; will begin borings to determine location within few weeks; other two new plants will be at Burton Dam and at Seed development to be located on Tallulah River between Burton and Lakemont or Mathis dam and completed in 1925, the Burton power plant to be completed in 1926; will construct necessary sub stations, transmission lines etc.; complete in 1924 or sooner transmission lines from Lindale to Summerville to Lafayette to Chickamauga to Tennessee state line; from Marietta to Canton to Ball Ground to Tate; from Berryton to Summerville to Trion; from Social Circle to Madison; construct transformers stations at Lafayette, Chickamauga, Marietta and Summerville and improve Butler and Davis St., stations in addition to others previously announced; program for 1923, already announced, includes completion of Tugalo development now under construction \$1,000,000; Mathis-Tallulah power plant at head of Tallulah Lake; 110,000 volt transmission line from Tallulah through Toccoa, Commerce, Jefferson, Winder, and Lawrenceville to Atlanta; number of substations; increased gas service in Atlanta and Kirkwood; improved street railway service, etc.; completed program will increase deliverable output of company from 272,000,000 to 635,000,000 K. W. hours per year.

Ga., Newton—Baker County Power Co. supplying power to Newton, Camilla, Sale City, Doerun, and Moutrie, Ga., will rebuild dam located on the Ichaway-Nochaway Creek, new head will approx. 28 ft.; J. E. Sirrine & Co., Engrs., Greenville, S. C. (Lately noted.)

Ky., Bowling Green—Morgantown Pike Electric Co., incptd. by Dr. A. M. Rowe, L. C. Alderson and H. W. Dublett.

Ky., Frankfort—Cumberland Hydro-Electric Power Co., capital \$100,000, incptd. by Charles H. Morris, Frankfort, Samuel A. Tescher and Harny A. Mansfield both Indianapolis, Ind.

Md., Cumberland—West Penn Power Co., general office Pittsburgh, Pa. acquired and will improve plants of Cumberland Electric Railway Co. and Edison Electric Illuminating Co.

Md., Elkton—Elkton Electric Co., Inc., capital \$100,000, chartered by John H. Ware, Jr., Phillip H. Close and Roy F. Simons; to acquire and operate properties of Gilpin Falls Hydro-Electric Trust Estate.

Miss., Ripley—Ripley Electrical Lighting & Power Corp., capital \$15,000, incptd. by Charles T. Nelms, Lee Cox, T. C. Hines.

Okla., Muskogee—R. P. Harrison, City Mgr., interested in plan to investigate feasibility of developing hydro-electric power plant on Illinois River.

S. C., Spartanburg—Blue Ridge Power Co., W. S. Montgomery, Prest., will construct \$1,000,000 plant on Green River to develop 10,000 H. P.

Tex., Childress—Childress Electric & Ice Co. will improve and extend plant.

Tex., Cuero—Cuero Light & Power Co., O. T. McAlister, Mgr., will expend about \$120,000 in development of 1500 H. P.; will begin work within 10 days.

Va., Rocky Mount—Light & Power Co., B. L. Fisher, Mgr. will develop 600 additional H. P. in 1924.

Va., Stuart—W. H. Clark will install 75 to 80 K. W. generator outfit. (See Mch. Wanted—Electric Generator Set.)

W. Va., Franklin—City, M. S. Hodges, Attorney, will install a 10 ft. dam across South branch of Potomac for purpose of generating power to run its electric light plant and pump its water; dam will give a maximum of 100 H. P., initial capacity 80 H. P.; cost of dam and additional mch., \$8000; will vote July 1 on bonds.

### Flour, Feed and Meal Mills.

Ky., Hopkinsville—The Acme Mills increased capital from \$50,000 to \$300,000.

S. C., Cheraw—Cheraw Oil & Fertilizer Co.,

M. B. Crigler, Secy.-Mgr. contemplating erection of flour and feed mill; will operate in connection with present enterprise.

Tenn., Memphis—Dairymen Milling Co., capital \$75,000, incptd. by G. W. Haynes, R. P. Powell and W. L. Robinson.

Tex., Port Arthur—Port Arthur Grain Co., increased capital from \$5000 to \$20,000.

### Foundry and Machine Plants.

Ala., Birmingham—Birmingham Machine & Foundry Co., 36th and 11th Sts., will erect plant addition, approx. cost \$10,000.

Mo., Joplin—J. B. and J. M. Linninger, Sharon, Pa., reported to have leased plant of Joplin Steel and Malleable Co., install crane and other equipment.

N. C., Kernersville—American Iron Works, Box 138 (lately noted incptd., capital \$75,000) organized with O. L. Smith, Secy.; A. C. Smith, Mgr.; will erect 40x80-ft. ordinary sheet and corrugated iron building; will mfr. hot air tobacco curing furnaces, general foundry, etc.; install 2 ton capacity cupola, sheet metal dept., crane, etc. (See Machinery Wanted—Cupola; Sheet Metal Shop Equipment; Pig Iron.)

Okla., Okmulgee—Okmulgee Foundry & Machine Co., capital \$50,000, incptd. by T. Frank Watson, F. C. Beckman, Clarence Jeffries.

Okla., Tulsa—Brass and Malleable Iron—Jarecki Mfg. Co., West 1st St. will erect additional 2 story building of steel and concrete construction, adjoining present plant; increasing capacity.

### Gas and Oil Enterprises.

Ark., Little Rock—Planters Oil Co., capital \$150,000, incptd. by J. K. Riffel and D. K. Hawthorne, both Little Rock, C. M. Conway, Texarkana, Ark.

Ga., Macon—Macon Gas Co. let contract to Improved Equipment Co. of New York, for installation of new equipment to cost approx. \$15,000; will rebuild entire gas producing unit.

Ky., Louisville—Louisville Gas & Electric Co., Donald McDonald, V. P., has acquired 70 acre site fronting the river and will construct gas plants to cost eventually \$10,000,000; first unit will be started soon, plant will be so constructed that it can be enlarged when necessary; included in plans is a terminal on river for handling large quantities of coal.

Ky., Prestonsburg—Duck's Creek Oil & Gas Co., capital \$51,000, incptd. by S. Nunnery, W. R. Callahan and W. P. Mayo.

Mo., Kansas City—Central Oil Co., capital

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\$200,000, ineptd. by Rupert Cox, J. B. Marri-son, O. M. Edmonson.

Okla., Bristow—Central Drilling Co., capital \$15,000, ineptd. by Jess L., Robt. L. and Robt. C. Sartain.

Okla., Enid—Herald Oil & Gas Co., capital \$150,000, ineptd. by T. T. Eason, R. L. and D. M. Montgomery all of Marlow.

Okla., Miami—Joplin-Oklahoma Prospecting & Development Co., increased capital from \$40,000 to \$50,000.

Okla., Tulsa—Fleetwood Co., capital \$40,000, ineptd. by W. M. Fleetwood, R. C. Holloway and others.

Tenn., Gallatin—Gillespie Oil Corp., P. E. Flemister, has refinery of 200 bbls. oil daily; 100 to 500 bbls. steel tank; will open mach. bids about May 1. See Mch. Wanted—Oil Plant Equipment.

Tenn., Nashville—O. W. Thomas & Son, capital \$25,000, ineptd. by W. C. Thomas, C. T. Sparkman and others.

Tex., Abilene—Wooten & Simmons, will construct oil plant and initial cost of \$200,000.

Tex., Dallas—Burleson Oil Co., capital \$100,000, ineptd. by B. W. Burleson, R. E. Williams and M. M. Herring.

Tex., Eastland—Arab Gasoline Co. will erect gasoline plant with daily capacity of 10,000 gal. gasoline; cost \$150,000.

Tex., Eastland—Arkansas Natural Gas Co. will construct gasoline plant.

Tex., Fort Worth—Hirt & MacDermott Gasoline Co., capital \$100,000, ineptd. by W. F. MacDermott, L. A. Presson and W. M. Odell.

Tex., San Antonio—Marathon Oil Co. increased capital from \$15,000 to \$300,000.

Tex., San Marcos—Royal Oil Co., Inc., capital \$50,000, chartered by P. J. Rogers, W. H. Jennings and H. F. Keep.

Va., Clifton Forge—Standard Gas & Oil Supply Co., Inc., Clifton Forge National Bank Bldg. will construct tanks with capacity of 100 to 17,000 gals.; construction by owners. (Lately noted increasing capital to \$150,000.)

W. Va., Charleston—Sayre Oil & Gas Co., capital \$500,000, ineptd. by I. G. Sayre, Earl Ward, C. A. Croft.

W. Va., Clarksburg—South Fork Oil Co., 720 Prunty Bldg., capital \$25,000, ineptd. by A. J. Simons, John Flint, H. D. Strother.

W. Va., Weston—Cain Run Oil & Gas Co., capital \$100,000, ineptd. by Romey A. Hall, Guy F. Gregg, James A. Fischer.

### Ice and Cold-Storage Plants.

Fla., Jacksonville—Wade, Farris & Wade, Inc., capital \$100,000, ineptd. with N. E. Farris, Prest.; N. G. Wade, Jr., Secy.-Treas.

Ga., Jackson—Jackson Ice Corp. plans installing cold storage and manufacturing plant in connection with ice factory.

La., Elton—For proposal details see Mch. Wanted—Ice & Cold Storage.

Md., Baltimore—Refrigerol Corp., 206 Union Trust Bldg., capital \$1,000,000, chartered by H. W. Downing, Thos. B. Martin and Harold H. Nesbit.

Mo., Doniphan—Goodwin & Jean will erect cold storage plant for poultry exchange.

Mo., Boonville—Boonville Ice & Laundry Co. will install plant equipment, approx. cost \$6000.

N. C., Washington—Crystal Ice & Coal Co., capital \$200,000, ineptd. E. R. Conger, Edenton, E. C. Conger and W. G. Geither, both Ellabeth City.

Tenn., McKenzie—City plans erecting municipal ice plant; contemplates bond issue. Address The Mayor.

Tex., Belton—Belton Ice & Fuel Co. will rebuild plant; burned at loss of \$30,000.

Tex., Byers—R. L. Ligon, interested in establishing a combined ice, power and water plant.

Tex., Marble Falls—G. L. Jones has under construction 6 ton capacity ice plant. (Lately noted.)

Tex., West Columbia—Columbia Ice & Mfg. Co., capital \$20,000, ineptd. by H. S. Badger, C. C. Saner and W. W. Keene.

W. Va., Welch—Southern Refrigerating Co., H. H. Johnson, Mgr. plans installing ice making mch., estimated cost \$25,000; increasing output.

### Iron and Steel Plants.

Tenn., Rockwood—Roane Iron Co., 42 Chamberlain Bldg., Chattanooga, Tenn., let contract for installation of 1500 K. W. turbo generator, to develop 2000 H. P., to be operated by high pressure steam from boiler plant or exhaust steam from blowing engines; cost several thousand dollars.

### Irrigation Systems.

Tex., Hankamer—Chambers County Irrigation Co., capital \$250,000, ineptd. by J. S. Hutchings, John McKnight and J. A. Lewis.

Tex., Ft. Stockton—Pecos County Water Improvement Dist. No. 1, Joseph Schlegel; has \$20,000 available for improvements along canals and irrigation equipment.

### Land Developments.

Fla., Coconut Grove—For full details see Road and Street Construction.

Fla., Lakeland—Lakeland Country Club, Zernie Barnes, Secy. Board of Directors, will expend \$35,000 in development of golf course.

Fla., Lakeland—Spencer-Futch Co., capital Co., capital \$100,000, ineptd. with Edwin Spencer, Jr., Prest.; M. Futch, Secy.-Treas.

Fla., Miami—Florida Cities Finance Co., M. C. Tibbitts, Prest., will expend several million dollars in development of Fulford By-The Sea, subdivision; will construct 3 mi. of 125 ft. boulevards; 80 ft. streets; 18-hole golf course; central park of 10 acres; apartment hotel; community clubhouse; water plant; postoffice and other public buildings.

Fla., Miami—Hugh Anderson will develop subdivision.

Fla., Miami—West Miami Corp., chartered with Frakn D. Fuoler, Prest.; W. R. Boyd, Secy.-Treas.

Fla., Oviedo—Forest Gardens Farms, incorporated with H. T. Warren, Prest.-Mgr.; M. M. Warren, Secy.; will develop 50 acres at Black Hammock in Seminole County for truck farming.

Fla., St. Petersburg—Boulevard & Bay Land & Development Co., capital \$6,000,000, ineptd. with C. J. Seelman, Prest.; Fred Blair, Secy. and Treas.

Fla., Stuart—For full details see Miscellaneous Construction.

Fla., Tampa—Franklin Highlands Corp., capital \$100,000, chartered with Howard P. MacFarland, Prest.; C. L. Bulloch, Secy.

Ga., Atlanta—City—Walter E. Simons, Mayor, contemplates expending \$2,500,000 in development of naturalistic city park, tract of 165 acres, will construct park buildings, pavilions, boat houses, bath houses; E. Burton Cooke, Landscape Archt., 516 Chamber of Commerce Bldg. (Lately noted.)

Ky., Louisville—Keller Brothers Co., capital \$6000, ineptd. by John, Charles S. and Fred Keller.

Ky., Louisville—Westminster Realty Co., capital \$10,000, ineptd. by A. M. Stork, Miriam Gaines both Louisville, T. C. Gaines, Anchorage.

Ky., Louisville—Columbia Land Co., capital \$25,000, ineptd. by Lewis R. Atwood, Joseph Burer and Samuel E. Booker.

Md., Baltimore—Driveway Realty Corp., 222 S. Collington Ave., capital \$250,000, ineptd. by James W. and Chas. R. Miller, Chas. C. Kraus.

Miss., Laurel—Laurel Chamber of Commerce, W. H. Smith, Secy., interested in organization of company with \$50,000 capital to promote settlement of cut-over lands in southern part of Jones county.

Mo., Kansas City—E. K. Carter Development Co., capital \$10,000, ineptd. by E. K. Carter, A. R. Waters, C. E. Kimpton.

Mo., University City—For full details see Sewer Construction.

N. C., Charlotte—Rosslyn Realty Co., capital \$100,000, ineptd. by Lee Kinney, T. O. Wilson, E. L. Kessler.

N. C., Charlotte—Lee Kinney and associates have acquired 63 acres and will develop for subdivision; will install city improvements; erect dwellings, etc.

N. C., China Grove—W. J. Swink of China Grove and O. A. Cannon of Concord, N. C. organized company to develop Swink, town of 400 acres; will construct cotton mills; install water and sewer lines, etc.; cost about \$2,000,000.

N. C., Pinehurst—Montgomery Orchard, capital \$75,000, ineptd. by Emery and Lexie E. and Frank Smith.

N. C., Statesville—D. J. Craig, W. A. Thomas and others interested in development of golf course.

S. C., Charleston—Brookland Corp., chartered with W. R. Greer, Prest.; J. H. Armstrong, Secy.-Treas.

S. C., Columbia—Bruce Walker Ravenal, Inc., capital \$15,000, chartered with Bruce W. Ravenal, Prest.-Treas.; Miss Fairfax Meade, Secy.

Tex., Dallas—For full details see Water Works.

Va., Alexandria—Walter A. Buscher & Co., Inc., capital \$15,000, chartered by Walter A. Buscher, Prest.; J. Elliott Wright, Jr., Secy.

Va., Martinsville—Martinsville Development Co., capital \$100,000, ineptd. by Dr. H. V. Price, K. C. Whittle, H. A. Ford and H. Self.

Va., Norfolk—Eldon Manor, Inc., capital \$325,000, chartered with Albert M. Wilson, Prest.; S. G. L. Hitch, Secy.

Va., Richmond—Improved Realty Corp., capital \$150,000, chartered by J. Jordan Leake, Prest.; Bernard Meredith, Secy.

W. Va., Sutton—Braxton Fairground & Park Co., capital \$10,000, ineptd. by F. L. Fox, Sutton; A. L. Morrison and R. N. Rolleyson, both Heavner.

W. Va., Welch—Sam Polon interested in development of subdivision; establish park, etc.

### Lumber Manufacturing.

Ark., Fayetteville—Phipps Lumber Co. will expend \$10,000 on establishing wagon factory and equipment to present plant.

Fla., Daytona—Malsby-Conrad Lumber Co., Orange St. will rebuild plant; burned at loss of \$75,000.

Fla., Scott's Ferry—W. S. Carter & Co., of Brinson, Ga., will erect 50x200-ft. ordinary mill building, construction by day labor with

supervising mill wright; installed \$40,000 woodworking mchy., all purchased, will add two or three new machines. (Previously noted.)

Fla., Southport—H. C. Graham, Pensacola and H. C. Campbell, of Jay, Fla., have acquired 7400 acres timber land, plans erecting saw mill.

Ky., Glomar—J. T. Whitaker, Blackey, Ky. purchased timber tract, will develop.

Ky., Prestonsburg—Prestonsburg Lumber Co., inctpd. by Lee P. Harris, W. T. Blackburn and Graham Harris.

Ky., Thornton — Jasper Collins acquired timber tract, will develop.

La., Monroe—Pratt Lumber Co., capital \$20,000, inctpd. with T. B. Pratt, Prest.; T. N. Pratt, Jr., Secy.-Treas.

Miss., Valley Park—W. W. Gary Lumber Co., capital \$800,000, inctpd. with W. W. Gary, Prest.; Hollandale, Miss., acquired 22,560 acres timber land in the Mississippi delta, consisting of gum, oak and miscellaneous hardwood; will construct modern band mill; also purchased single band mill timber land at Percy, Miss., will operate.

Mo., Jackson—Leming Lumber Co., increased capital from \$50,000 to \$100,000.

Mo., Springfield—Landers Lumber & Cement Co.'s building will be rebuilt, owned by Hiram L. McLaughlin. (Lately noted burned at loss of \$85,000.)

N. C., Hertford—Major & Loomis Co., increased capital from \$60,000 to \$500,000.

S. C., Liberty—Posey Lumber Co., inctpd. with L. C. Posey, Prest.-Secy., C. E. Bush, V. P.-Treas.

Tex., Hemphill—Temple Lumber Co., let contract to Thrall & Shea of Lake Charles, La., to rebuild mill lately noted burned at loss of \$125,000; plant will consist of 2-hand mill and 1 gang with necessary mchy.; estimated output from 150,000 to 175,000 ft. of lumber daily; contract also calls for dismantling of mill at Cressmont, Ky., and removal to Hemphill.

Tex., San Augustine—San Augustine County Lumber Co. increased capital from \$400,000 to \$600,000.

Va., Richmond—Mattapony Lumber Co., capital \$100,000, inctpd. with C. T. Neale Prest., Lanesville, Va., James L. Robertson, Secy.

W. Va., Pratt—Johnson Stave & Lumber Co., capital \$50,000, inctpd. by R. M. Johnson, Pratt; C. G. Johnson of Sutton, and O. D. Johnson, Charleston.

### Metal-Working Plants.

Ala., Sheffield—Alaten Lead Products Co., organized with H. R. Hickey, Secy.-Mgr.; leased building; will mfre. battery plates for automobiles.

Ky., Louisville—Flexlume Sign Co., increased capital from \$5000.

Md., Baltimore—Maryland Meter Works, Edmund S. Dickey, Gen. Mgr., 224 Holiday St., have completed plans for construction of 7 story, 36x82-ft. brick and reinforced concrete building on Saratoga St. to be connected to present plant by bridges over intervening alley; also erect 1 story building corner of Saratoga and Holliday Sts.; approx. cost \$75,000; soon invite bids; Theodore W. Pietsch, Archt., American Bldg. (Lately noted.)

Md., Baltimore—Metal Products Corp., 2027 Frederick Ave., capital \$10,000, inctpd. by Lee Silver, Hyman J. and Isidore Adler.

Mo., St. Louis—Mississippi Valley Radio Co., inctpd. by C. B. Maloy, G. D. Croxton, J. B. Abbot.

Tenn., Nashville—Can Openers—Quick Safe Co., increased capital from \$100,000 to \$165,000.

Va., Richmond—Hudson Gun Corp., chartered by B. Johnson, Prest.; L. H. Rady, Secy.

### Mining.

Md., Baltimore—Elestano Mining Co., Inc., increased capital by \$25,000.

Md., Hagerstown—Maryland Glass Sand Co., increased capital to \$250,000.

Md., White Marsh—White Marsh Sand & Gravel Co., increased capital by \$10,000.

Mo., Carthage—W. E. Talley has leased 185 acres of ore land, will develop.

S. C., Gaffney—Cherokee Farms Co., inctpd. with R. S. Lipscomb, Prest.; H. M. Brown, Treas.; has 1200 acres, containing gold, silver, talc and graphite deposits; plans for development not completed.

S. C., Pacolet—Spartanburg Quarries Corp., capital \$50,000, inctpd. with Baylis T. Earle, Prest.; organized to operate Pacolet granite quarry on Pacolet river; install mchy. for rock crushing, daily capacity from 15 to 20 tons.

Tex., Beaumont — Santo Domingo Mining Co., inctpd. by G. H. Shepherd, E. A. Janushek and others.

Tex., Linden—Iron—Barringer, Terrell & Johnson, Philadelphia, Pa., reported to have purchased iron ore lands; will develop.

Tex., San Antonio—Shale, etc.—Frank P. Carle will develop shale deposits and extracting the ichthyol; reported.

Va., Clifton Forge—Liberty Lime and Stone Co., increased capital from \$150,000 to \$300,000.

Va., Clintwood—Clintwood Mining Corp., capital \$50,000, chartered with Lee Long, Prest., Vante, Va.; Roland E. Chase, Secy., Clintwood.

Va., Roanoke—Rockydale Stone Co., capital \$75,000, inctpd. with Gordon B. Pace, Prest.; W. V. Gregory, Secy.

### Miscellaneous Construction.

Ark., Helena—Levee—Gerard B. Lambert Co., of St. Louis, Mo., let contract to W. E. Callahan Construction Co., Dallas, Tex., at \$250,000 to build levee about Lambrook plantation protecting it from back water of White and Arkansas rivers; levee containing about 1,800,000 cu. yds. dirt.

Fla., Stuart—Sea Wall, etc.—City plans following municipal improvements; build seawall along entire St. Lucie waterfront, widening Railroad Ave. to 80 ft., removing portion railroad trackage, creating new municipal park, paving additional streets, beautifying central square including installation of drinking fountain. Address The Mayor.

Fla., Tampa—For proposal details see Mchy. Wanted-Incinerators.

La., New Orleans—City Park Commrs. contemplate construction of concrete swimming pool in City Park, capacity from 5000 to 10,000 gals. daily; locker and dressing rooms, seating galleries and other facilities will be provided, building to be completed by glass, steel and concrete top; estimated cost from \$100,000 to \$175,000.

Mo., St. Louis—Elevator—Missouri Pacific R. R. Co., E. A. Hadley, Chief Engr., 1055 Railway Exchange Bldg. have completed all preliminary details for the erection of \$2,000,000 grain elevator located at Carondelet St. foot of Primm St.; reinforced concrete construction; main building 309x130 ft.; workhouse 226x112 ft., including 80 circular bins each 16 ft. diam.; storage capacity of elevator track about 250 cars, and plant can take care of 120 cars every 8 hrs.; all ma-

chinery to be driven by individual motors; main building to be connected by marine chute with loading device on timber crib on waters' edge for both loading and unloading; contract for 37,500 bbls. of cement (used in construction) let to Alpha Portland Cement Co., Easton, Pa.; and to Laclede Steel Co. of St. Louis, for 1050 tons of reinforcing steel; capacity of elevator will be 2,000,000 bu. of grain; Folwell-Ahliskog Co., Archt., Chicago. (Lately noted.)

N. C., Wilmington—Channel, etc.—Maj. Oscar O. Kuentz, local Army Engr., has \$300,000 available for the deepening and straightening of Cape Fear river bar; the total amount for waterways of North Carolina is approx. \$600,000 of which amount \$500,000 is for improvements and maintenance of the Cape Fear river below Wilmington; \$100,000 for maintenance and improvements of waterways of the northeastern part of state and \$18,000 for maintenance of Northeast, Black and upper Cape Fear rivers.

Tenn., Bristol—Channel—For full details see Bridges, Culverts, Viaducts.

W. Va., Logan—Incinerator—City will construct incinerator, cost approx. \$10,000; J. A. Hogg, Mayor.

Miss., Vicksburg—Sea wall—City, J. J. Hayes, Mayor, will vote April 24 on \$125,000 bonds for construction of sea-wall, etc. (Lately noted.)

### Miscellaneous Enterprises.

Ala., Birmingham—American Laundry Co., Benjamin Lee Wertheimer, Prest., will erect 2 story, 100x140 ft. laundry building at corner 2nd Ave. and 17th St., approx. cost \$240,000; fireproof construction; Harry B. Wheelock, Archt.

Ala., Birmingham—Two Car Transportation System Co., inctpd. by Leon M. Gibbs, C. M. Self and W. C. Griffith.

Fla., Apalachicola—Southern Crushing Co., capital \$25,000, inctpd. with Geo. Birrell, Prest.; Wm. F. Birrell, Secy.-Treas.

Ala., Gadsden—Walnut Hill Poultry Farm, inctpd. with Fred T. Agricola, Prest., A. A. Lander, V. P. and Gen. Mgr.; Mrs. A. A. Lander, Secy.-Treas.; has 3000 incubator, will increase capacity to 10,000.

Fla., Homestead—South Dade Publishing Co., capital \$10,000, inctpd. with Benjamin E. Archer, Prest.; Marjory L. Archer, Secy.-Treas.

Fla., Jacksonville—Transportation — City contemplates establishing either motor bus line or street railway system, for Southside; vote April 10 on \$30,000 bonds for motor bus line or \$100,000 bonds for street railway. Address The Mayor.

Fla., Jacksonville—Central State Hotel Co., capital \$500,000, inctpd. with A. F. Pickard, Prest.; J. A. Yates, V. P.-Secy.

Ky., Ashland—Home Construction & Supply Co., capital \$25,000, inctpd. by W. B. Elswick, Charles Simpson, J. F. Hager, Jr.

Ky., Ashland—Cherry Construction Co., Inc., Room 14, Haskell Bldg. (Lately noted inctpd., capital \$30,000) organized with A. R. Cherry, Prest.-Mgr.; W. C. Bramer, Treas.; construction of roadway and streets. (See Machinery Wanted—Steel Forms (Culverts, Curb and Gutter); Reinforcing Materials; Tile.)

Ky., Lexington—Producers Dairy Co., (lately noted inctpd., capital \$30,000) re-organized with H. E. Coons, Prest.; W. S. Anderson Secy.-Treas.; E. C. Reeves, Mgr.; has 40x135 ft. building; installed equipment, refrigerating plant, pasteurizer, etc.; daily capacity 400 gals. milk; changed name from Co-operative Dairy Co.

Ky., Louisville—Hand Laundry Co., capt-



tal \$5000, inceptd. by D. J. Ferguson, J. B. Thompson, E. T. Webb.

Ky., Shelbyville — Shelbyville Hotel Co., capital \$120,000, inceptd. by C. G. Lawson, H. H. Carter and M. Ruben.

Md., Baltimore — A. P. Snow & Co., 1223 Patapasco St., capital \$50,000, inceptd. by Albert P. Snow, James A. Cavanaugh and, Henry W. Ritter.

Md., Baltimore — Baer Publicity Co., Inc., 13 W. Fayette St., inceptd. by Jesse, and Mary J. Baer, Sylvia J. Waldvogel.

Md., Baltimore — Baltimore Book Bindery, Inc., 361 Calvert Bldg., capital \$30,000, chartered by Dennis D. O'Leary, John C. Egner and Wilson J. Carroll.

Md., Baltimore — The Guide Publishing Co. of Maryland, 637 Equitable Bldg., capital \$25,000, inceptd. by J. Albert O'Brien, Wilton H. Gladman and John B. McCardell.

Md., Baltimore — Sullivan Plumbing & Heating Co., Inc., 638 Equitable Bldg., capital \$25,000, inceptd. by H. Kent McCay, Wm. P. Sullivan and Harwood Miller.

Md., Baltimore — Engineering — Industrial Management Corp., 405 St. Paul St., capital \$50,000, chartered by David F. Crowley, Lawrence K. Winer and John Burkloe Brown.

Md., Cumberland — Amusements — Mid-City Baseball Assn., Inc., 47½ S. Mechanis St., capital \$25,000, chartered by James K. Ford, James F. Maguire and Irving Millenson.

Md., Curtis Bay, Sta., Baltimore — Atlantic Wrecking Co., foot of Beech St., capital \$100,000, inceptd. by Victor M. Jarrett, Henry J. Sullivan, John C. McEvoy.

Md., Elkton — Elkton Community Playhouse, inceptd. by Wm. H. Pierce, John P. Lally and Edward F. Connor.

Md., Forest Glen — Construction — M. Frank Keating Co., capital \$25,000, inceptd. by Frank Keating, Walter A. Dowd, John C. Heinbuch, Jr.

Md., Frederick — New Citizen Publishing & Mfg. Co., capital \$50,000, inceptd. by George T. Schroeder, David C. Winebrenner, 3rd., Edward J. Smith.

Md., Hagerstown — Conococheague Amusement Co., 303 First National Bank Bldg., capital \$75,000, inceptd. by L. Keller Garver, John B. and Charles W. Huyett.

Md., North East — Green Hill Hotel Co., capital \$10,000, inceptd. by George W. Cosden, Wilmer J. Falls, Robt. C. Reeder.

Mo., Bowling Green — Sanitarium & Mineral Water Co., capital \$24,000, inceptd. by R. H. Williams, C. H. Downing, M. S. Main.

Mo., Kansas City — Jackson Laundry Co., capital \$65,000, inceptd. by A. D. Bloch, and others.

Mo., Kansas City — Bayless-Fallaschek-Hudson Publishing Co., capital \$30,000, inceptd. by Paul Fallaschek, Franklin Hudson and Lillian E. Bayless.

Mo., Kansas City — Fairyland Amusement Co., 75 St. and Prospect Ave. (lately noted inceptd., capital \$500,000) organized with E. E. Harrington, Prest.-Treas.; M. H. Hudson, Jr., Secy.; establish amusement park; Miller & Baker, Inc., Archt., 3041 Grand Central Terminal, New York; H. S. Smith, Const. Engr.

Mo., Moberly — Fire Equipment — For full details see Water Works.

Mo., St. Joseph — Lon Hardman Printing Co., capital \$40,000, inceptd. by Lon Hardman, G. A. Vollmer, Thornton Cash.

Mo., St. Louis — National Reclamation Publishing Co., capital \$15,000, inceptd. by C. E. Jacoby, H. J. Sternberg, C. S. Gannon, A. J. Bracken; to publish National Reclamation Magazine.

Mo., St. Louis — Whitaker-Bahrens-Reuhl Engraving Co., capital \$10,000, inceptd. by C. E. Whitaker, M. Behrens, F. E. Reuhl.

Mo., University City — Fire Equipment — For full details see Sewer Construction.

N. C., High Point — High Point Plumbing & Heating Co., capital \$50,000, inceptd. by W. G. Cranford, P. E. Swain and J. A. Stith, all of Winston Salem.

N. C., High Point — Guilford Plumbing Co., capital \$25,000, inceptd. by W. H. Plumber, J. P. Rawley, F. D. McCarty.

Okla., Sand Springs — Right Way Tailoring & Cleaning Co., capital \$10,000, inceptd. by Wm. H. Stricher, H. M. Lee and others.

S. C., Florence — Florence Printing Co., 32 E. Evans St. (Lately noted increased capital to \$30,000) installed linotypes and presses, \$35,000, purchased; will install solid page bases for mounting electros. (See Machinery Wanted—Printing Equipment.)

S. C., Spartanburg — Glenn-Ayers Floral Co., inceptd. by Dr. J. P. Glenn, and J. M. Ayers; will erect 2 greenhouses at Hayne Junction.

Tenn., Chattanooga — Austin Cafe, Inc., chartered by J. W. Nicholson, W. A. Walker, W. R. Massey.

Tenn., Memphis — White Swan Damp Wash Laundry (lately noted inceptd., capital \$100,000) organized with Chas. Sterious, Prest.; has leased brick building at corner Madison and Morrison Sts., will remodel for laundry.

Tenn., Memphis — Tri-State Fair Association will expend \$4000 this year on general improvements including installation of merry-go-rounds, roller coasters, grading roads, etc.; total cost \$100,000.

Tex., Beaumont — Heisig Storage & Transfer Co., capital \$20,000, inceptd. by C. T. Heisig, Burt and Earl Morrison.

Tex., Commerce — Young Hardware Co., capital \$10,000, inceptd. by T. R. Young, O. P. Marshall and R. E. L. McCarter.

Tex., Dallas — General Intelligence Publishing Co., inceptd. by W. L. Alexander, W. Lon Steffens and C. H. Schulle.

Tex., Fort Worth — Byrne Publishing Co., inceptd. by J. T., L. R. and S. L. Byrne.

Tex., Fort Worth — Curran Laundry Co., increased capital from \$9000 to \$35,000.

Tex., Houston — Kent H. Easter Warehouse & Forwarding Co., capital \$200,000, inceptd. by Kent H. Easter, A. C. Bernard and G. M. Sealy.

Tex., Palestine — Bailey-Grainger Undertaking Co., capital \$8000, inceptd. by T. B. Bailey, C. J. Grainger and J. P. Frank.

Tex., San Antonio — Construction — Travis-St. Mary's Co. capital \$175,000, inceptd. by D. J. Hart, H. H. Rogers and R. C. Hill.

Tex., San Antonio — For proposal details see Mch. Wanted—Heating Mains.

Tex., San Antonio — National Printing & Stationery Co., capital \$20,000, inceptd. by F. H. Bradford, A. W. Landrum and G. G. Grabenheimer.

Tex., San Marcos — Kennedy Construction Co., capital \$10,000, inceptd. by G. L., D. A. and C. J. Kennedy.

Tex., Temple — Hobbs Transfer Co., inceptd. by E. P. and J. E. Hobbs, and others.

Tex., Tyler — Hotel — Pellow, Inc., capital \$12,000, chartered by R. E. Pellow, J. M. Dockery and J. B. Peabody.

Tex., Ysleta — Live Stock — The Pence Co., capital \$10,000, inceptd. by W. N. and Leonard Pence and others.

Va., East Radford — American Steam Laundry Co., re-organized with \$25,000 capital, plans erecting new building.

Va., Radford — Giles Hardware Co., Inc.,

capital \$15,000, chartered with Minter Jackson, Prest.; J. R. Burton, Secy.

Va., Charlottesville — W. T. Martin Hardware Co., increased capital from \$50,000 to \$75,000.

Va., Craig Healing Springs — Amusements — Craig Healing Springs, Inc., capital \$500,000, chartered with H. S. Duncan, Prest., New York; John C. Gramling, Secy., Miami, Fla.

Va., Lynchburg — Service Transfer Co., Inc., capital \$10,000, inceptd. with Harry A. Payne, Prest.-Treas.; William R. Anderson, Secy.

Va., Staunton — Stonewall Jackson Hotel Co., capital \$300,000, inceptd. with A. T. Moore, Prest.; R. E. R. Nelson, Secy.

Va., Suffolk — Construction — Home Builders Finance Corp., capital \$50,000, inceptd. with John T. Phillips, Prest., H. H. Holland, Secy.; G. Lloyd Bell, Treas.

W. Va., Barrackville — Brown Construction Co., capital \$25,000, inceptd. by E. A. Allen, Shinnston; C. R. Brown and D. L. Wilson both of Barrackville.

W. Va., Fairmont — Brown Construction Co., capital \$25,000, inceptd. by L. A. Wilson and L. C. Tennant, Fairmont; C. R. Brown, Barrackville, W. Va.

W. Va., Huntington — John L. Conner Building Co., capital \$10,000, inceptd. by J. L. Conner, C. N. Rogers, S. A. Harbour.

### Miscellaneous Factories.

Ala., Andalusia — Underwear — Andala Co., capital \$25,000, inceptd. with J. H. Guy, Prest.; J. G. Scherf, Secy.-Treas.; has leased building 60x125 ft.; weekly output 600 doz. union suits.

Ala., Birmingham — Russell City Mfg. Co., capital \$100,000, inceptd. by L. S. Russell, H. H. K. Jefferson, W. W. Crawford.

Ala., Mobile — H. C. Schultz contemplates establishing creamery. (See Mch. Wanted—Creamery.)

Fla., Orlando — Orlando Mfg. Co., capital \$25,000, inceptd. with E. J. Jenkins, Prest.; Anna H. Jenkins, Secy.-Treas.

Ga., LaGrange — LaGrange Chero Cola Bottling Co., capital \$6000, inceptd. by A. E. Daniel, D. B. Meadows.

Ky., Hazard — Jewelry — W. S. Baker Co., capital \$8000, inceptd. by W. S. Baker, T. J. Alford, and O. W. Summers.

Ky., Louisville — John Miles Clothing Co., capital \$50,000, inceptd. by John Miles, William H. Stone, Julian Harris.

Ky., Louisville — Miller Paper Co., increased capital from \$70,000 to \$100,000.

Ky., Owensboro — Westerfield Candy Co., inceptd. by Clarence Westerfield, W. E. Overstreet, Monarch L. Cox.

Ky., Paducah — Michael Ferguson Co., capital \$400,000, inceptd. by E. B. Ferguson Mike and Mrs. Mollie Michael.

La., Monroe — Southern Carbon Co. let contract to Hope Engineering & Supply Co., Mt. Vernon, Ohio, to lay pipe line from Monroe to Alexandria; 12-in. main; cost \$2,000,000. (Lately noted.)

Md., Baltimore — City Baking Co., 900 Standard Oil Bldg., capital \$1,000,000, incorporated by Franklin W. Miller, Carl P. Schmidt, Emory C. Rice.

Md., Baltimore — Windsor Drug Co., 2706 Windor Mill Rd., capital \$50,000, inceptd. by Edward F. Peroutka, Wm. Harvey Mitchell and Harry W. Johnson.

Md., Baltimore — Baltimore Ladies Suit Co., Inc., 27 W. Baltimore St., capital \$100,000, chartered by Harry Shapiro, Nathan Weiner and Julius Klavansky.

Md., Baltimore — The Piccadilly Ink Co.,

872 Linden Ave., organized with Romilly F. Humphries, Jr., Prest.; E. Hyatt Wight, Secy.; mfre. writing ink.

Md., Baltimore—Acme Music Roll Corp., 222 W. Pratt St., capital \$100,000, chartered by Frank J. Kadan, James S. Stevenson, John Cizauskas.

Md., Baltimore—Hauswald Bakery, 2816 Edmondson Ave., capital \$100,000 inceptd. by George Kaultenbach, Timothy J. Dee and Wm. C. Rogers.

Md., Baltimore—Cleaning, etc. — Golden Glow, Inc., 726 N. Howard St., capital \$35,000, inceptd. by Christopher T. and Leslie L. Plunkett and others.

Md., Baltimore—Central Rubber Co., rear of 3510 Philadelphia rd., inceptd. by Harry A. Barron, Joseph L. Symonds and Herman Rembro.

Md., Baltimore—Goodwill Industries, 207 S. Broadway, is having plans prepared by Charles M. Anderson, 9 E. Pleasant St., for plant; main building will be 6 stories, with 2 smaller additions 5 and 2 stories each; first floor will be used for store; sixth floor of main bldg. will be used for gymnasium and playrooms; other floors will be for workshops, etc.; brick, stone and steel; cost \$80,000. (Previously noted.)

Md., Baltimore—Maryland Glass Corp., will erect one story frame addition to plant at southeast corner of Linder and Ontario Sts.; cost \$24,000.

Md., Baltimore—E & D Medicine Co., 19 N. Gay St., increased capital to \$100,000.

Miss., Columbus—King Cotton Mfg. Co., capital \$10,000, inceptd. by A. A. Breast, L. D. Patterson and others.

Miss., Vicksburg—White Cross Salve Co., capital \$150,000, inceptd. by James Mangle, P. L. Hennessey, R. M. Kelly.

Mo., Jefferson City—Arrow Ice Cream & Dairy Co., capital \$10,000, inceptd. by Charles Kruetz, Wm. Bockewitz, and Wm. Gerner.

Mo., Kansas City—Morton Salt Co., capital \$730,368, inceptd. by Joy and Sterling Morton, Daniel Peterkin; mfre. sal soda, salt and by-products.

Mo., Springfield—Southwest Tanning Co., capital \$100,000, inceptd. by W. R. Wolfe, E. M. Mitchell, W. E. Ogston.

Mo., St. Louis—Overalls—Wardan Manufacturing Co., capital \$10,000, inceptd. by B. S. Wardan, C. M. Monroe, C. M. Wardan.

Mo., St. Louis—Arrow Ice Cream and Dairy Co., capital \$10,000, inceptd. by Charles Lindley, J. I. Sheldon, Charles R. Kruetz.

Mo., West Plains—Ozark Milk Products Co. establish plant for mfre. of ice cream, butter and condensed milk.

N. C., High Point—Piedmont Cigar Co., capital \$25,000, inceptd. by C. A. Smith, Walter and Hattie Royal.

Okla., Chickasha—Liberty Drug Co., capital \$25,000, inceptd. by E. M. Tankersley, I. W. Austin, both Chickasha; R. S. Thompson, Broken Bow.

Tenn., Chattanooga—Medicine Creole Pinus Co., 1208 Carter St. increased capital by \$20,000.

Tenn., Chattanooga—Lewis Mfg. Co., L. B. Gladdish, Mgr., will rebuild plant at 48th St. and Belt Railroad, burned at loss of \$15,000.

Tenn., Chattanooga—Pile Driver Medicine Co., capital \$50,000, inceptd. by Charles L. Hall, Thomas F. Byrne, M. Reed and others.

Tenn., Paris—Messrs. Smiley & Maxey of Dyersburg, Tenn., will erect ice cream plant on Ruff St.; Newt. Petty, in charge of construction.

Tex., Austin—J. A. McKinnon & Co., increased capital to \$12,500 to \$20,000.

Tex., Eastland—Hale & Harrell Rig Construction Co., chartered by S. O. and B. V. Hale, Tom Hale.

Tex., Fort Worth—Quality Shirt Mfg. Co., capital \$10,000, inceptd. by J. and R. Jenkins, J. P. Hilt.

Tex., Houston—Woodleigh Co., capital \$150,000, inceptd. by W. S. Hunt, J. W. Garrow and others.

Tex., Longview—Rembert Paint Co., lately noted inceptd. with \$10,000 capital organized with Carter Otey, Prest.; E. B. Rembert, Secy.; has plant with daily output 500 gals. metal and roof paints.

Tex., Navasota—Navasota Dairy Co., inceptd. by J. T. Swanson, Paul Freeman, and J. W. Barry.

Tex., San Antonio—Blue Bonnet Creamery, Inc., capital \$50,000, chartered by Bernard Brown, E. H. Nichols and Max Herzstein.

Tex., Stamford—Stamford Leader Co., capital \$10,000, inceptd. by W. T. Andrews, J. D. Shackelford and G. L. Inglish.

Va., Altavista—Altavista Drug Corp., capital \$15,000, chartered with R. L. Clanton, Prest.; South Hill; A. McCurdy Ritsch, Secy., Altavista.

Va., Lynchburg—Barrow-Scruggs & Co., Inc., capital \$50,000, inceptd. by F. C. Scruggs, Jr., Prest.; mfre. clothing.

Va., Petersburg—Economy Church Envelope Co., inceptd. with Tarlton F. Parsons, Prest.; will establish envelope plant at corner of High and South Sts.

Va., Richmond—Southern Crockery Co., F. F. Socoloff, Prest. will rebuild plant, burned at loss of \$25,000.

Va., Suffolk—Boll Weevil Exterminator Co., capital \$50,000, inceptd. with Geo. B. Dehman, Prest., Union Trust Bldg., Baltimore, Md., Thos. H. Dehman, Treas., Suffolk; Charles J. Kuhlman, Secy., 906 Belair Road, Baltimore.

W. Va., Clarksburg—Sanitary Baking Co., Albert Spelsburg, Jr., will erect \$30,000 addition to plant on Jackson St.; 15x50 ft.; brick; capacity of 25,000 loaves of bread daily.

W. Va., Newell—Homer-Laughlin China Co. of East Liverpool, Ohio; contemplates erection of \$700,000 plant; tunnel-kiln type construction.

W. Va., Weston—Window Blinds—W. M. Taylor purchased additional site and will construct addition to plant.

### Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Whitlock-McDonald Motor Corp., capital \$300,000, chartered with J. C. Whitlock, Prest.; C. G. Thompson, Secy.

Ala., Birmingham—Murray Tire & Rubber Co., 26th St., capital \$150,000, inceptd. with W. F. Tidyman, Mgr., acquired 200x150-ft. site, will install mchy. for mfre. of cord and fabric tires and tubes; probably erect additional building.

Ala., Gadsden—Wofford-Nelson Auto Machine Co., 10th St. and 1st Ave., has under construction 30x80-ft. addition, equip for paint shop, install dust proof finishing room and other facilities; steam heated.

D. C., Washington—Garage, etc. — L. E. Sullivan Tire Co., will erect an automobile and garage building corner Rhode Island and 6th St.; Milburn, Heister & Co., Archts.

Fla., Avon Park—Service Station—Gulf Refining Co., Floyd C. Cooper, Dist. Representative, Atlanta, Ga., will probably erect \$20,000 bulk service plant; installing possibly three 12,000 gal. capacity tanks; B. C. Moore, local Agt. in charge.

Fla., Miami—Read & Randel Motor Co.,

capital \$10,000, inceptd. with H. Randel, Prest., Treas.; F. Randel, Secy.

Fla., West Palm Beach—The Texas Co. will erect filling station and automobile accessories store corner Palm Ave. and S. Poinsettia St.

Ky., Corbin—Corbin Garage & Sales Co. increased capital to \$50,000.

Ky., Louisville—Automobile Equipment Co., inceptd. by R. E. McConnell, W. V. Woodward, Emile Steinfield.

Ky., Middlesboro—Tri-State Motor Sales Co., capital \$15,000, inceptd. by E. P. Nicholson, J. A. Richardson, and Thomas Yarber.

Ky., Salyersville—Williams Motor Co., incorporated by Tony and C. S. Williams, J. E. Conley.

Md., Baltimore—Diamond Cab Co., Inc., 26 S. Liberty St., capital \$100,000, inceptd. by Frank M. Fisher, Melville Stephenson and Geo. Boyce.

Md., Baltimore—U. S. Lubricator Co., Inc., 1420 N. Gilmor St., capital \$100,000 inceptd. by Edward J. Coolahan, Charles S. Lerch, Henry B. Frere.

Md., Baltimore—Red Top Cab Co., 1231 Calvert Bldg., inceptd. by Wm. S. Hammond, W. Howard Hamilton and Charles H. Tilghman.

Md., Baltimore—Checker Taxi Cab Co., 1231 Calvert Bldg., inceptd. by W. Woward Hamilton, Charles H. Tilghman and Walter H. Cook.

Md., Baltimore—Fox Motors, Inc., Cathedral St., capital \$100,000, chartered with Louis Fox, Prest.

Md., Baltimore—Garage—Maryland Highway Emergency Service, Inc., 1301 Fidelity Bldg., capital \$50,000, chartered by John D. Nock, Irvin J. Sullivan, Charles N. Matthews.

Md., Baltimore—Pilot Sales Corp., 709 Calvert St., capital \$100,000, inceptd. by Clifton S. Brown, W. Cornwall Smith and Milton Roberts.

Md., Baltimore—Haverford Cycle Sales Co., Inc., 329 W. Baltimore St., chartered by Louis Frankel, Paul Perman and Joseph F. DiDomenico.

Md., Hagerstown—Gerber's Garages, Inc., Hamilton Blvd., capital \$10,000, chartered by J. Errol Ward, Louis L. Gerber and C. Walter Baker.

Md., Hagerstown—Service Station—American Oil Co., will erect 1 story brick and stucco service station; cost \$25,000; invite bids.

Md., Salisbury—Yellow Taxi, Inc., capital \$25,000, chartered by Earl W. Hastings, Suel H. Dove, J. Wm. Windsor.

Md., Sykesville—Sykesville Motor and Supply Co., capital \$25,000, inceptd. by Elmer E. Lee, Albert M. and F. Frank Musgrove.

Miss., Newton—Burns-McWhorter Motor Co., capital \$20,000, inceptd. by W. E. McWhorter, W. B. Hampton, and others.

Mo., Kansas City—Automobile Accessories—Fuller Mfg. Co., inceptd. by C. V. Jarvis, M. E. Scanlan, M. F. Vance.

Mo., St. Louis—Sperreng Oakland Co., capital \$18,000, inceptd. by N. C. Sperreng, O. F. Ash, Jr.

Mo., St. Louis—Eagle Motors Co., Inc., chartered by Guy Wilson, H. J. Bube and John B. Krieger.

N. C., Wilmington—Garage—W. G. Broadfoot let contract to Walter Clark at \$20,000 to erect garage building, concrete foundation and floors, built up roof, brick and steel construction.

Okla., Enid—Crews Motor Co., capital \$10,000, inceptd. by R. E. Crews, C. H. Murray, C. E. Williams.

Okla., Grandfield—Lightning Service Sta-



tion, capital \$20,000, inctpd. by Samuel Ecker, Mrs. J. M. Ecker and Mrs. A. Z. Huffs.

Okla., Tulsa—Worthington Motor Co., capital \$25,000, inctpd. by F. E. Holston, H. M. Edinger, H. L. Hughes.

S. C., Greenville—Hartzog-Hale Motor Co., inctpd. by O. B. Hartzog, W. R. Hale, Jr., and W. E. Armstrong.

Tenn., Memphis—Union Motor Car Co. increased capital from \$75,000 to \$150,000.

Tex., Austin—Barker Motor Co., capital \$75,000, inctpd. by B. M. Barker, Mrs. L. T. Barker and A. E. Beard.

Tex., Dallas—Packard—North Texas Motor Co. increased capital from \$100,000 to \$150,000.

Tex., Mission—Mission Motor Co., capital \$20,000, inctpd. by Drew Patterson, George H. Speer and others.

Va., Harrisonburg — Miller-Hoover Motor Corp., capital \$50,000 chartered with A. R. Miller, Prest.; Frank C. Hoover, Secy.

Va., Roanoke—Shockley Motor Co., capital \$50,000, inctpd. with W. P. Shockley, Prest.; G. W. Sisler, Secy.

W. Va., Charleston—Viking Gasoline Corp., chartered by W. A. Ross, H. B. Pullen and C. E. Lermond.

W. Va., Clarksburg—Clarksburg Automobile Co., Harry P. Sturm, Gen. Mgr. will erect sales and accessory building on Water St.; cost \$75,000.

## Railway Shops, Terminals, Round-houses, Etc.

Ky., Russell—Chesapeake & Ohio Ry. Co., F. I. Cabell, Chf. Engr., Richmond, Va., reported as having approved plans for erection of 18 stall round house; will double capacity of the shops.

Tex., El Paso—Southern Pacific Co., Geo. W. Boschke, Chief Engr., San Francisco, Fla., let contract to Vernon E. Ware at \$100,000, to erect locomotive shops of brick, concrete and steel construction; install \$170,000 equipment.

## Railways.

Ala., Gadsden—Alabama Company, it is reported, will build a short line of railroad to connect its recently purchased Etowah mines with its furnaces at Gadsden.

Miss., Cruger—Reported that a railroad 8 mi. long will be built from Cruger to the Providence plantation of W. C. Taylor to develop gravel pit.

Miss., Kiln—Edward Hines Yellow Pine Trustees, of Lumberton, Miss., have, it is reported applied to the Mississippi Railroad Commission for authority to build a railroad extension from Kiln to Picayune, 15 or 20 mi.

W. Va., Charleston—Chesapeake & Ohio Railway has asked authority of the Interstate Commerce Commission to build an extension 10 mi. long in this state. C. W. Johns is Ch. Engr. at Richmond, Va.

## Road and Street Construction.

Ala., Carrollton—State Highway Comsn., W. S. Keller, Engr., Montgomery, Ala., will receive bids until March 20 for 23 mi. road in Pickens County, between Tuscaloosa County line and Carrollton; 63,650 cu. yds. gravel; 60,000 lbs. reinforcing steel; 2465 sq. yds. bituminous surfacing.

Ala., Mobile—City plans resurfacing Washington Ave.; A. Glover Holder, Jr., Engr.

Ala., Sheffield—City let contract to South-

ern Roads Co., Birmingham, Ala., to pave 2nd St. from Atlanta Ave. to 27th St., to connect with intercity highway leading to Florence; also let contract to lay sidewalks and construct sanitary sewers, to Mitchell Bros., and J. K. Johnson; total cost \$75,000.

Ala., Tusculumbia—City will lay asphalt top on macadam base on 6th St.; voted \$25,000 bonds. Address The Mayor. (Lately noted.)

Ark., Little Rock—Little Rock-Hot Springs Highway Commrs. will build 7 sections of roads. For proposal details see Mch. Wanted—Road Paving.

D. C., Washington—Dist. Commrs. let contract to Cranford Co., 2620 E St., N. W., Washington, at \$500,000, for 140,000 sq. yds. cement concrete roadways. (Lately noted.)

Fla., Coconut Grove — Albert L. Isaac, Town Clk., plans improving streets, will vote March 27 on \$100,000 bonds; install septic tank, and purchase equipment, vote March 27, on \$5000 bonds; purchase and improve land for parks, vote March 27, on \$70,000 bonds; purchase building, vote March 27 on \$25,000 bonds. (Lately noted.)

Fla., DeLand—City plans 10 mi. additional street paving, and improving sewer and electric systems; \$320,000. Address The Mayor.

Fla., Inverness—Citrus County Commrs., plan completing state road No. 5, together with lateral roads through County; voted \$750,000 bonds. (Lately noted.)

Fla., Lakeland—City Commrs. contemplate paving following streets: Bay, S. Dakota, S. Florida, Callahan Court, Cresap, Hunter Hillcrest, Lake Hunter Drive, 5th Ave. etc.

Fla., Miami—For full details see Land Developments.

Fla., Palatka — Putnam County, Special Road Dist., plans completing St. Johns River scenic highway through County, from Jacksonville to DeLand; will vote May 1, on \$700,000 bonds. (Lately noted.)

Fla., Pensacola—State Road Dept., Tallahassee, Fla., let contract to Hancock Bros., Mobile, Ala., at \$138,556.25 to grade, construct drainage structures, lay base and wearing surface on 5 mi. of Road No. 1, from Pensacola to Nunez Ferry, Escambia County, Proj. No. 35. (Lately noted.)

Fla., St. Petersburg — Pinellas County plans improving 90 mi. road including 7 roads as follows: 30 mi. Seminole road, from Davista to Pasco County line; 7 mi. from Ozona to Hillsborough County line; 12 mi. from Clearwater to Oldsmar; 15 mi. from Indian Rocks to Safety Harbor; 13 mi. Haines road from St. Petersburg to Largo intersection; 6 mi. Gandy Bridge approach, from Largo intersection to bridge head; 6 mi. Gandy Bridge approach from 4th St.; will vote May 2, on \$3,275,000; C. E. Burleson, County Engr.

Fla., Sarasota—City will extend and pave Coconut Ave. through to station site. Address The Mayor.

Fla., Seabreeze—City plans laying sidewalks on Palmetto Ave., between Butler and Ocean Blvds., and Wild Olive St., between Ora St., and Ocean Blvd. Address The Mayor.

Fla., Sebring—State Road Dept., H. Phillips, Chmn., Tallahassee, Fla., let contract to DeLaney & McCormick, at \$90,000, to complete 5.75 mi. Lake Annie-Josephine Creek link of State road No. 8, Highlands County, between Lake Stearns and Josephine Creek; P. P. Pileher, Engr. (Lately noted.)

Fla., Stuart—For full details see Miscellaneous Construction.

Fla., Tampa — For proposal details see Mch. Wanted—Paving.

Fla., Winter Garden—City. W. T. Chapman,

let contract to J. B. McCrary Co., Atlanta, Ga., at \$200,000 for paving.

Ga., Athens—State Highway Dept., Atlanta, Ga., let contract to C. E. Story, Augusta, Ga., at \$47,750, to hard surface 1.7 mi. road on Bankhead highway on Athens-Danielsville road, Clarke County, F. A. Proj. 300; G. W. Darden, Div. Engr., Athens. (Lately noted.)

Ga., Augusta—State Highway Dept., Atlanta, Ga., let contract to R. M. Dorn, Augusta, to build 7.181 mi. sand clay road, and to Chester E. Story, Augusta, for several concrete bridges, in Richmond and Columbia Counties, between Augusta and Furey Ferry, on Savannah River, known as Furey's Ferry road; total cost \$40,000, State Highway to furnish one half. (Lately noted.)

Ga., Madison—Morgan County let contract to MacDougald Construction Co., at \$50,000 for 1 mi. concrete paving on Roswell road, between Buckhead and Powers Ferry road. Address County Commrs.

Ky., Ashland — For proposal details see Mch. Wanted—Paving and Sewer Construction.

Ky., Calhoun—McLean County plans improving road from Hartford to Nuckols. Address County Commrs.

Ky., Hartford—Ohio County plans building Owensboro road to Daviess County line, connecting with Hartford road; voted \$300,000 bonds. Address County Commrs.

Ky., Lancaster—Garrard County, G. M. Treadway, County Judge, plans improving 12 mi. inter-county highways; voted \$70,000 bonds.

La., Covington — Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La., received low bid from Kentwood Gravel Co., at \$148,766.41 for 4.96 mi. New Orleans-Mississippi Highway, from Pearl River Station to East Pearl River, St. Tammany Parish. F. A. Proj. 126-B. (Lately noted.)

La., Madisonville—For proposal details see Mch. Wanted—Roadway and Bridge Construction.

La., St. Francisville—For proposal details see Mch. Wanted — Road Construction; Gravel.

La., Shreveport—For proposal details see Mch. Wanted—Road Construction.

Maryland—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., plans building 39 roads as follows: Anne Arundel County, 1 mi. Iglehart, 2 mi. Mayo, 2 mi. Shadyside, and surface 2.86 mi. Defense Highway; Baltimore County, Philadelphia road to Harford County line, Hereford road, from Mount Carmel toward White House, and 1.5 mi. Eastern Ave. from Chase toward city line; Calvert County, extend Broomes Island road, and extend road to Holland Point; Dorchester County, 2 mi. Blackwater, 1 mi. Cambridge-Lloyds, 1 mi. Eldorado-Finchville; Frederick County, 1 mi. from Furnace Ford Bridge to Montgomery County line; 1 mi. from Myersville north, 2 mi. through Oak Orchard to Carroll County line, 1 mi. from end of road south of Middletown, 2 mi. from Urbana toward Hyattstown, 1 mi. from Thurmont toward Rocky Ridge, 1 mi. from Emmitsburg west to State line.

Garrett County, surface graded portion of Friendsville road, Gortner-Red House road, Luke-Bloomington road; Harford County, Philadelphia road, Shawsville-Norrisville, Jarrettsville-Federal Hill.

Kent County, Massey-Millington road to Millington Bridge, Chestertown-Pomona, from town limits of Chestertown; St. Mary's County, 4 mi. Piney Point, 3 mi. Three-Notched, 3 mi. Chaptico-Budds Creek; Somerset County, Princess Anne-Deal's Island;

Washington County, Hagerstown-Sharpsburg, Hagerstown-Smithsburg, Hagerstown-Leitersburg, Hagerstown-Cearfoss, Beaver Creek, Hagerstown and Downsville.

Wicomico County, Salisbury-Delmar road, from north end of present concrete construction to southern corporate limits of Delmar, Salisbury-Nanticoke road, from end of present concrete construction to Gales lane, head of Creek road to Tyaskin, Moore's Corner-Fruitland road from Salisbury; John N. Mackall, Director of Public Works.

Md., Baltimore—State Roads Comsn., 601 Garrett Bldg., plans paving Mount St. from Harlem to North Aves.

Md., Baltimore—City, Paving Comsn., R. Keith Compton, Chmn., 214 E. Lexington St., received low bids from Baltimore Asphalt Block & Tile Co., 1320 N. Monroe St., to pave following streets: Eutaw Heights Ave. from Berkshire road to Belair road; Elmley Ave. from Belair road to St. Cloud Ave., and Lyndale, Elmora, and Ravenwood Aves. from Greenview to St. Cloud; 30th St. from Alameda to Hillen road, and Tivoly and Fenwick Aves. from 29th to 31st; Overland Ave., from Lauretta Ave. to point 855 ft. west.

Md. Baltimore—For proposal details see Mchy. Wanted—Road Construction.

Mississippi—State Highway Dept., Jackson, Miss., will receive bids until March 15 for brick or concrete road in Pike County; until March 20 for gravel road in Issaquena County, between Maxwell and Rolling Fork; until March 22, for 4 mi. gravel road in Lauderdale County, on Mississippi Valley Highway, south of Meridian; until Apr. 3 for 2 mi. concrete or other paving in Harrison County, near Gulfport; until Apr. 6, for 12.1 mi. graded road in Leake County, between Carthage and Philadelphia; contemplates building 6 gravel roads as follows: Warren County, north of Vicksburg; Holmes County, between Lexington and Durant; Tate County, between Hernando and Sardis; Lafayette County, across Tallahatchie river bottom, between Oxford and Holly Springs, and one between Charleston and Grenada County line; Pearl County, in Jackson highway.

Mississippi—State Highway Dept., Jackson, Miss., will receive bids for 4 roads as follows: until March 20, in Sharkey County, 8.6 mi. gravel road between Rollingfork and Meyersville; until Apr. 3 in Harrison County, 18 mi. hard surfaced road between Biloxi and Bay St. Louis; until Apr. 4, in Forrester County, 7.7 mi. gravel, road between Hattiesburg and State line, near Picaune; until Apr. 10, in Holmes County, 5.7 mi. gravel road between Durant and Lexington.

Miss., Jackson—Municipal Comsn., will receive bids for paving S. Congress St. from Pearl to A. and V. Ry. tracks, and Rose St., from W. Capitol to Poindexter and Lynch.

Miss., Magnolia—State Highway Comsn., H. C. Dietzer, Engr., Jackson, Miss., will receive alternate bids until March 15 to construct brick or concrete road in Pike County.

Missouri—State Highway Dept., Jefferson City, will build 5 sections of roads. For proposal details see Mchy. Wanted—Road Construction.

Mo., University City—For full details see Sewer Construction.

N. C., Burlington—Ears B. Horner, Mayor, will let contract March 12 to grade and pave certain streets with sheet asphalt or cement concrete; more than 50,000 sq. yds. pavement; instead of 17,500 sq. yds. as lately noted; 11,000 lin. ft. combined concrete curb and gutter.

N. C., Charlotte — Mecklenburg County

Highway Comsn., G. D. Bradshaw, Secy., let contract to Noll Construction Co., Lexington, N. C., at \$257,344.10, for 3 road projects as follows: 4.3 mi. Cornelius to Beatty's Ford Bridge; 4 mi. 32nd St. and Old County Home road; 4 mi. Derita road, from city limits beyond Derita; all concrete base, with asphalt top. (Lately noted.)

N. C., Greensboro—For proposal details see Mchy. Wanted—Paving.

N. C., Rowland—For proposal details see Mchy. Wanted—Paving and Sewer Construction.

N. C., Waynesville—City plans expending \$100,000 for additional street paving as follows: Haywood, Church, Walnut, Boundary, Hazel, Cherry, East, Dellwood Road; extend E. Main St. to Clyde Road; also will secure watershed on Shiney Creek; lay and extend water mains; enlarge filtering plant. Address The Mayor.

N. C., Winston-Salem—Forsyth County Comms. contemplate building 4 mi. hard surfaced road on Lexington road to Davidson County line.

Okla., Ardmore—Carter County let contract at \$54,845, for 2 mi. concrete road extending north from city limits. Address County Comms.

Okla., Bartlesville—Washington County comms. plan building hard surfaced road in County, south from present concrete highway through Ochelata and Romona, and north from Dewey to Kansas State line; M. E. Hyatt, Dist. Engr. of State Highway Dept.

Okla., Duncan—State Highway Comsn., Fred G. Simmons, Engr., Oklahoma City, plans building 50 mi. highway in Stephens County near Duncan; high type pavement; Projs. 99 and 102; \$1,800,000 available. (Lately noted.)

Okla., Oklahoma City—City Comms. let contract to Reinhart & Donovan Co., at \$10,643.90, to pave 11th St., from Kate to Bath Aves.; to Western Paving Co., at \$8605.75 to pave 31st St. from Shartel to Francis Aves. and at \$5707 for California Ave. from Western to Clegans Aves.; also let contract to White & Evans, at \$13,868.75, to build reinforced concrete bridge over Lightning Creek at C Ave., and Santa Fe R. R.

S. C., Charleston—City Comsn., plans paving Mount Pleasant St. from Meeting to Rutledge, and Rutledge from Mount Pleasant to Herlot; brick.

S. C., Chester—Chester County, Board of Directors, received low bids from Hinson Brothers Construction Co., Waxhaw, N. C., at \$20,283.71, to grade, construct drainage structures, and top soil 8,667 mi. road between Richburg and Catawba River. (Lately noted.)

S. C., Columbia—City plans extending Carolina Ave., Cherry St., Milwood, and Woodrow; W. S. Tomlinson, City Engr.

S. C., Gaffney—For proposal details see Mchy. Wanted—Road Construction.

S. C., Greenwood—City, Paving Comsn., let contract to Greenwood Concrete Co., at \$13,941.80 to pave Phoenix St. from Magnolia St. to fair grounds.

S. C., Laurens—Laurens County received low bids from Elliott & Sons, Spartanburg, S. C., at \$17,570.20 to topsoil 6 mi. road from Ora to Watts Mills. (Lately noted.)

S. C., Walhalla—Oconee County plans road improvements; voted \$100,000 bonds. Address County Comms.

S. C., York—York County plans building hard surfaced road from end of cement road on Cherry road and Catawba River Bridge, between Rock Hill and Fort Mill. Address County Comms.

S. C., York—York County plans building road from Fort Mill to North Carolina line; \$25,000 available to be supplemented by federal aid. Address County Comms.

Tenn., Bristol—City Comms. plan building approaches to proposed Ashe St. Bridge over Southern Ry.; will vote Apr. 14 on \$10,000 bonds; to widen and straighten Beaver Creek channel; will vote Apr. 14 on \$15,000.

Tenn., Columbus—City Comsn. let contracts to M. C. Barlow, Columbus, at \$52,900 to pave with brick, 1st Ave., from 15th to 17th, 16th and 17th Sts., from 1st to 2nd Aves.; and at \$24,000 to pave with concrete, 6th Ave. from 8th to 10th.

Tenn., Manchester—Coffee County is expending \$600,000 to build 2 highways, including one between Dixie Highway at Tullahoma and Memphis to Bristol highway at McMinnville; let contract to Nowlin Robinson, Sparta, Tenn., to place coarse stone base on road from Belmont to Manchester, and from Summittville to Warren County line; will let contract soon to build sections of road from Hillsboro to Rutherford County line. Address County Comms.

Tenn., Nashville—S. H. McKay, City Clk., will receive bids until March 13 to lay concrete curbing, reset stone curbs and lay new concrete sidewalks on 7th St. between Woodland and Bienville, and Doster St., between 1st and 7th; Percy Sharpe, Mayor.

Texas—Federal Bureau of Public Roads, Fort Worth, Tex., approved 3 road projects as follows: Schleicher County, 9.9 mi. road from 2 mi. south of Tom Green County line, on Sonora-San Angelo road; gravel with bituminous top, \$133,859, federal aid, \$30,466; Red River County, 7.6 mi. gravel road on S. H. No. 6, from Bagwell to Lamar County line, through Detroit, \$102,047, federal aid \$32,846; Palo Pinto County, 9.8 mi. road from Stephens County line to Metcalf Gap, water-bound macadam with surface treatment, \$201,191, federal aid \$25,000.

Tex., Beaumont—City Comsn., let contract to Uvalde Rock Asphalt Co., Cline, Tex., at \$209,902, to pave with rock asphalt, Pine, Mariposa, Fannin and Railroad Sts. (Lately noted.)

Tex., Beaumont—Geo. J. Roark, City Mgr., plans shell paving 50 blocks.

Tex., Clarksville—For proposal details see Mchy. Wanted—Road Construction.

Tex., Clarksville—Prentice Wilson, Mayor, will improve streets, and gravel Market Space; will vote March 26 on \$22,000 bonds.

Tex., Dallas—For full details see Water Works.

Tex., Fort Worth—For proposal details see Mchy. Wanted—Road Construction.

Tex., Henrietta—Clay County, J. F. Vaden, County Judge, plans improving roads in Petrolia Road Dist.; will vote March 20 on \$100,000 bonds; will also construct 35 mi. concrete pavement on S. H. Nos. 2 and 5; vote March 20 on \$575,000 bonds.

Tex., Houston—For full details see Sewer Construction.

Tex., Waco—City Comms., R. L. Strubling, City Controller, let contract to Central Bitulithic Co., Dallas, Tex., at \$2.89 per sq. yd. to pave S. 8th St. from Clay to Speight Aves.; black base, with 2-in. Warrenite wearing surface. (Lately noted.)

Va., Charlottesville—Albemarle County, Bd. of Supvrs., will receive bids for 2 sections of roads as follows: 1½-mi. bituminous macadam road between Gills Store and Jarman's Gap, on Blairs Park road; between Ortman's and Williams Park, on Jordan road; total cost \$30,000.



Va., Norfolk—Chas. M. Ashburner, City Mgr., plans expending \$56,013 to pave 21st St. from Colley Ave. to West Ghent Blvd.

Va., Onancock—Town plans improving streets; contemplates \$10,000 bond issue. Address The Mayor.

West Virginia—State Road Comsn., F. B. Carskadona, Secy., Charleston, W. Va., let contracts to grade, drain, etc., 22 roads as follows:

Mason County, 4.5 mi. clean and tar cold surface, Good Roads Co., Philadelphia Pa., at \$4284.80; Mercer County, 32 mi. clean and tar cold surface, Good Roads Co. at \$18,232.78; Boone County, 4.1 mi. Low Gap-Madison road, Echols Construction Co., Marlinton, at \$56,277.75; Clay County, 4 mi. from Head of Bulls Creek to Kanawha County line, Messinger & Hagar, Huntington, at \$80,435; Fayette County, 3.9 mi. Gauley Bridge road toward Ansted road, bituminous macadam, Janutolo Co., Fayetteville, at \$197,231.10, for oil asphalt, Grant County, 9 mi. Petersburg toward Maysville road, Dayton Construction Co., Elkins, at \$76,503; Greenbrier County, 3.1 mi. Crawley-Clintonville road, bituminous macadam, Sutton Construction Co., Ashland Ky., at \$98,034, for oil asphalt.

Hampshire County, 5 mi. Mineral County line-Mechanicsburg Gap road, waterbound macadam, Russell & Gary, Youngstown Ohio, at \$68,144; Harrison County, 1.54 mi. Northwestern Turnpike, Salem-Doddridge County line, concrete, Salem Bridge & Construction, Salem, at \$55,659.54; Lewis County, 6.56 mi. Staunton and Parkesburg Pike, between Upshur and Weston County line, concrete, Fucy Bros. & Tulley Construction Co., Weston, at \$267,292.03; Lincoln County, 7 mi. Lincoln-Griffithsville road, bituminous macadam, Smith Construction Co., Youngstown, Ohio, at \$216,280, for oil asphalt.

Mercer County, 16 mi. Spanishburg-Flat Top road, C. F. Waugh, Williamson, at \$254,680; Mineral County, 10.5 mi. Northwestern Turnpike, from New Creek to Hampshire County line, waterbound macadam, Russell & Gary, at \$140,135; Nicholas County, 3.8 mi. Drennan to Proj. 96 road, Lookout Construction Co., Lookout, W. Va., at \$34,630.20; Ohio County, 1 mi. National Pike from Glenwood to Altenheim Hill, reconstruct for paving with brick, sheet asphalt, or Warrenite bitulithic on concrete base, G. T. Fogle & Co., Charleston, at \$75,352.14; Preston County, 4 mi. Northwestern Turnpike from Aurora to Maryland State line, H. H. Bruffy, Webster Springs, at \$61,019.65; Ritchie County, 9 mi. Cairo-Harrisville road, cement concrete, rock asphalt, bituminous concrete, or Warrentine bitulithic, G. T. Fogle & Co., \$360,050.34, for oil.

Tyler and Pleasants Counties, 11.8 mi. Sistersville-Grape Island road, gravel surface, Connell, Laub & Bracht, Dayton, Ohio, at \$129,890.29; Webster County, 2.23 mi. McGuire Gap to Webster Springs, H. H. Bruffy, at \$36,410.25; Wetzel County, 3 mi. New Martinsville-Wileyville road, gravel surface; Keeley Construction Co., \$30,340; Wirt and Wood Counties, 3 sections, totaling 15.4 mi., to Connell, Laub & Bracht, at \$482,057.95. (Lately noted.)

W. Va., Charleston—City let contract to Board & Haley Co., Charleston, at \$45,273.43 to pave 8 streets and alley as follows: Couch, from Virginia to Randolph; Elm, from Main to Central Ave.; both oil asphalt; Carr, from Charleston St. to foot of hill; Welch, from end of paving to Young; Spring, and North Rand, from Bullitt to Young; all Trinidad

asphalt; alley west of Broad St., from Washington to Lewis, plain 7-in. cement concrete; Ohio Ave. from Berkeley to Columbia Blvd.; Young, from Welch to Spring; both oil asphalt; let contract to Andrews Asphalt Paving Co., Hamilton, Ohio, at \$28,211.98, to pave Crescent Road, with Trinidad asphalt, and Mary St., and Park Drive, with oil asphalt; Gardner Ave., to Harris & Moore, Charleston, at \$16,011.10; 7-in. plain cement concrete; etc. Address The Mayor.

W. Va., Clarksburg—Harrison County Commissioners Court, let contracts for 8 sections of roads as follows. Union Dist., 9000 ft. bituminous macadam road from Gusman Bridge to Lewis County line, to Paul S. Hornor Co., Clarksburg, at \$47,249.01; Clark Dist., 8950 ft. bituminous macadam road from West Milford road to County Club, to W. F. Allen, Clarksburg, at \$29,960.65; Eagle Dist., 6200 ft. one course plain cement concrete pavement from Lumberport to Laura Lee, to Paul S. Hornor Co., at \$42,296.60; Sardis Dist., 2700 ft. one course plain cement concrete pavement from end of Wallace to R. R. crossing at Irving Siding, to W. F. Allen & Co., at \$20,620.20; Simpson Dist., 5280 ft. one course plain cement concrete pavement from Bridgeport toward Bothesville, to N. M. Leigh, Mannington, W. Va., at \$31,701.60; Ten-Mile Dist., 5280 ft. one course plain cement concrete pavement from Jacobs Run School House to Doddridge County line, to W. F. Allen & Co. at \$28,000; Ten-Mile Dist., 5550 ft. one course plain cement concrete pavement from Northwestern Turnpike, down Ten Mile to Salem Fork, to Salem Bridge & Construction Co., Salem, W. Va., at \$31,000; Coal Dist., grade and drain 6300 ft. road from Clarksburg toward Glen Falls, to L. D. Thompson, Clarksburg, at \$10,000. (Lately noted.)

W. Va., Dunbar—For proposal details see Mch. Wanted—Paving.

W. Va., Fairmont—City, Board of Directors, plans resurfacing Maple Ave. with asphalt.

W. Va., Hinton—State Road Comsn., Charleston, W. Va., will let contracts in April for 2 roads as follows: road on Atlantic-Pacific Highway, between Greenbrier County line and Pence Spring; hard surfaced road from Hinton toll bridge to Raleigh County line.

W. Va.—Huntington—For proposal details see Mch. Wanted—Road Construction.

W. Va., Logan—Logan County plans expending \$128,000 of \$600,000 bond issue to build road from Monitor Junction to Holden, at \$113,000, and Peach Creek Bridge substructures at \$15,000; J. N. Smith, County Road Engr.

W. Va., Logan—Logan County Commrs. Court plans improving 6 roads as follows: 14 mi. Henlawson-Lincoln County, \$350,000; 8 mi. Stollings-Blair, \$200,000; 7 mi. Stirratt-Mingo County, \$150,000; 4 mi. Stollings to Rum Creek, \$80,000; 7 mi. Man to Wyoming County line, \$140,000; complete road between Rum Creek and Man, \$20,000; will vote March 31 on \$600,000 bonds; will receive \$472,000 from state road funds.

W. Va., Wheeling—For proposal details see Mch. Wanted—Road Construction.

### Sewer Construction.

Ala., Sheffield—For full details see Road and Street Construction.

Ark., Mena—City, Mayor Jones, contemplates voting on \$40,000 bond issue for purchase of sewer system, building extensions

on the main together with disposal system at outlet.

Fla., Coconut Grove—For full details see Road and Street Construction.

Fla., DeLand—For full details see Road and Street Construction.

Ky., Ashland — For proposal details see Mch. Wanted—Paving and Sewer Construction.

Ky., Owensboro—City, Dr. J. H. Hickman, Mayor, will probably not vote on \$650,000 sewer bonds as lately reported.

Md., Baltimore—For proposal details see Mch. Wanted—Sanitary Sewer.

Md., Baltimore—City, Milton J. Ruark, Div. Engr., Sewerage Division, plans extension of sanitary sewer system in Frederick road and Gwynn Falls section.

Miss., Crystal Springs—City let contract at \$10,000 to Smith Bros., Dallas, Tex., for installing sewer system. (Lately noted.)

Mo., Columbia—City, will construct sewer system; cost \$44,475; C. J. McCoy Construction Co., Contrs., Emporia, Kansas.

Mo., Lathrop—For full details see Water Works.

Mo., Sugar Creek—City Council will open bids March 19 for construction of sewer system; \$25,000 bonds available.

Mo., University City—City will vote on April 3, on \$470,000 bonds for following improvements: \$200,000 for city parks; \$45,000 for building and equipping fire engine house; \$138,000 for constructing sewer through River des Peres Valley; \$50,000 for remodeling City Hall; \$35,000 for resurfacing Delmar boulevard; \$4000 for construction of bridge over River des Peres. Address the Mayor.

N. C., China Grove—For full details see Land Developments.

N. C., Fayetteville—For proposal details see Mch. Wanted—Waterworks and Sewerage Improvements.

N. C., Greensboro — For full details see Water Works.

N. C., Rowland—For proposal details see Mch. Wanted—Paving and Sewer Construction.

Tex., Brady—City contemplates expending \$15,000 in construction of storm sewers; will probably vote on bonds; Baker E. Van Zuden, Const. Engr., Fort Worth; E. L. Jones, Mayor.

Tex., Dallas—For full details see Water Works.

Tex., Giddings—For full details see Water Works.

Tex., Houston—City will vote April 9 on \$200,000 bonds for gravel streets; \$500,000 for permanent paving; \$250,000 for storm sewers; \$100,000 for White Oak Bayou and \$150,000 for Buffalo Bayou, O. F. Holcombe, Mayor.

W. Va., Huntington—A. B. Maupin, City Engr. will begin preliminary surveys for South Side sewer relief and new sewers for other sections.

### Telephone Systems.

Ga., Atlanta—Southern Bell & Telephone Co., 61½ N. Forsyth St. let contract to Barge-Thompson Co. at \$25,000 to remodel 4th, 5th and 6th floors of main exchange building.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Ga., Milledgeville—Milledgeville Telephone & Telegraph Co., capital \$75,000, inctpd. by John T. Allen, J. T. King, Sr., and Walter T. Johnson.

Mo., St. Louis—Western Union Telegraph Co., main office 195 Broadway, New York, purchased site corner 9th and Chestnut Sts., to erect \$500,000 office building; reported.

Tenn., Cookeville—Gainesboro Telephone Co. leased Cumberland Telephone Co.'s lines in Smith County; also purchased Home Telephone Co.'s exchange and lines.

Tex., Galveston—Southwestern Bell Telephone Co., James S. Hanna, local Mgr. plans expending \$50,000 for this year; work includes remodeling of offices, additions to outside equipment, etc.

### Textile Mills.

Ala., Andalusia—J. H. Guy, W. A. Jeffrey and others reported interested in erection of 10,000 spindle cotton mill.

Ga., Chickamauga—Crystal Springs Bleachery Co. let contract to Batson Cook Co. of Columbus, Ga., for construction of additional bleachery unit; 400x135 ft.; part of bldg. 2 stories; slow burning mill construction; brick walls, steel sash, composition roof and concrete floors; cost about \$180,000. (Lately noted.)

Ga., Ocilla—Ocilla Cotton Mills, capital \$500,000, inctpd. with H. E. Oxford, Prest., J. J. Flanders, V. P.; H. H. Hill, Secy.; will erect plant to mfr. cotton fabric; install 10,000.

Ky., Murray—T. H. Stokes contemplates establishing knitting mill, (See Mch. Wanted—Knitting Mill Supplies.)

N. C., Asheville—Oak Lane Knitting Mills of Germantown, Pa. contemplate construction knitting mill.

N. C., China Grove—W. J. Swink of China Grove and O. A. Cannon of Concord, N. C., will erect cotton mill at Swink. (See Land Developments.)

N. C., High Point—Pointer Hosiery Co., capital \$125,000, inctpd. by E. H. and W. C. Covington, J. H. Adams.

N. C., High Point—Amos Hosiery Mill let contract to S. P. Montgomery for erection of 2 story, brick addition to plant; cost \$10,000.

N. C., Spindale—Stonecutter Mills Co., is having plans prepared by J. E. Serrine & Co., Engrs., Greenville, S. C., for bleaching, dyeing and finishing plant. (Lately noted.)

N. C., Thomasville—Amazon Cotton Mills, C. G. Hill, Prest., will erect standard mill construction bldg., 488x132 ft.; plans being prepared by J. E. Serrine & Co., Engrs., Greenville; will soon call for bids for construction; heating, plumbing, humidifying and electrical equipment contract not let. (Lately noted.)

N. C., Worthville—Leward Cotton Mills, Inc., changed name from Riverside Mills, Inc., increased capital from \$125,000 to \$500,000 let contract to Lockwood, Greene & Co., (Charlotte, N. C. office) for improvements and addition to plant to accommodate 5000 additional spindles and 150 additional looms; part of machinery purchased. (Lately noted.)

S. C., Greenwood—Grendel Mills, J. P. Abney, Prest., will erect addition to Mill No. 2; 4 stories; will install 12,000 spindles and 300 looms, increasing capacity of plant by about 50 per cent; cost approx. \$500,000; contract will be let April 14.

S. C., Spartanburg—Arcadia Mills Co., H. A. Ligon, Jr., V. P. and Gen. Mgr., will construct mill, initial equipment 30,000 spindles; cost \$500,000.

Tex., Eagle Lake—Industrial Cotton Mills, capital \$1,000,000, inctpd. with J. A. Dromgoole, Prest.; G. W. Keith, V. P. & Gen. Mgr.; B. H. Faber, Secy.; will establish mill to mfr. cotton goods; company proposes to investigate possibility of developing water power on Colorado River, which will involve construction of dam, thus obtaining power for mill. (B. H. Faber lately noted interested in establishment of mill).

Tex., Waco—Waco Garment Co., capital \$10,000, inctpd. by J. M. and O. H. Wood, J. P. Henderson; mfr. cotton textiles.

### Water Works.

Fla., Miami—For full details see Land Developments.

Fla., Tampa—City voted \$2,650,000 bonds to purchase properties of Tampa Water Works Co. and to make extensions of system. Address The Mayor. (Lately noted.)

La., Elton—For proposal details see Mch. Wanted—Water Works System.

Md., Baltimore—Board of Awards opened bids for water filtration plant on west side of Hillen road; Frank Carozza and Rowe Construction Co., Gilmore near Edmondson Ave. was lowest bidder at \$1,248,955. (Lately noted.)

Miss., Jackson—City, W. A. Scott, Mayor, will vote April 14 on \$25,000 bonds for enlarging water plant.

Mo., Kirksville—City, E. L. Barnes, City Clerk, will expend \$260,000 on water works extensions, daily capacity 1,000,000 gals.; will install one extra pump unit of 600 gal. capacity; Black & Veatch, Engr., Kansas City, Mo.; will vote April 17 on \$260,000 bonds. (Lately noted.)

Mo., Lathrop—City votes March 20 on \$60,000 water and \$22,000 sewer bonds. Address The Mayor.

Mo., Moberly—City is considering expending about \$40,000 for improving water works system, plans also include purchase of pumper fire engine and other fire department equipment. Address The Mayor.

N. C., China Grove—For full details see Land Developments.

N. C., Fayetteville—For proposal details see Mch. Wanted—Waterworks and Sewerage Improvements.

N. C., Greensboro—City let contract at \$40,783 to Paul N. Howard, Raleigh, N. C., for installation of approx. 7 mi. of water pipe and installation of about 5 mi. sewer lines. (Lately noted.)

N. C., Pine Bluff—City, J. B. Little, Mayor, let contract to Chicago Bridge & Iron Works, Atlanta, Ga., at \$3780 for 50,000 gal. steel tank and 75 ft. steel tower for water works; rejected bids for pump and motor; will ask for new bids on following: 75 G. P. M. triplex pump on same base with 220 volt, single phase, alternating current, 10 H. P., 60 cycle motor direct connected to pump, f. o. b. Pinebluff, total head not exceeding 210 ft. 3 inches discharge pipe; contract to be let March 20. (Lately noted.)

N. C., Waynesville—For full details see Road and Street Construction.

Tenn., Lewisburg—City contemplates construction of reservoir and installing filtration plant; will probably vote on \$130,000 bonds. Address The Mayor.

Tex., Dallas—City, S. R. Alredge, Mayor, will vote on April 3 on \$8,325,000 bonds for the following improvements. \$5,000,000 for water supply; \$1,000,000 for schools; \$1,250,000 for streets; \$500,000 for sewerage disposal and \$150,000 for sanitary sewers; \$100,000 for fire stations; \$325,000 for parks. (Lately noted.)

Tex., Elgin—City will vote March 27 on \$40,000 bonds for improvements to water works. Address The Mayor. (Lately noted.)

Tex., Fort Worth—City let contract at \$400,000, to American Pipe Co., Birmingham, Ala., for cast iron pipe for extending water distributing system; other improvements will be made at cost of \$1,100,000; \$1,500,000 bonds available. (Lately noted.)

Tex., Giddings—City contemplates voting on \$40,000 bonds for water works plant and sewerage system. Address The Mayor.

Tex., Perryton—City will improve water works; \$75,000 available. Address The Mayor.

Tex., Temple—City will increase capacity of filtration plant at city waterwork; invite bids for addition of one or more units; also receiving bids for construction of 3,000,000 gal. electric pump for station at Leon River. Address The Mayor.

Va., Cape Charles—Water Committee let contract at \$6935 to Chicago Bridge & Iron Works for construction of tanks and tower and at \$30,711 to Stevens-Etz Montague Co., Inc., Norfolk, for all other work connected with contemplated water works. (Lately noted.)

Va., Winchester—For proposal details see Mch. Wanted—Reservoir (Storage.)

W. Va., Wheeling—City, Charles H. Dowling, Mgr., will open bids April 4 for complete work on \$2,000,000 water filtration plant. (Lately noted.)

W. Va., Williamsport—Water Comms. is having made by Norton, Bird & Whitman, Munsey Bldg., Baltimore, Md. for preliminary survey of water sources.

### Woodworking Plant.

Fla., Jacksonville—Automobile Trucks—Smith & Neil Co., Myrtle Ave. have acquired stock of the Florida Paint Removing & Motor Cleaning Co., will increase facilities of plant; mfr. auto trucks, tops, etc.

Fla., Lake Wales—Townsend Sash, Door & Lumber Co., J. F. Townsend, Prest., will enlarge planning mill and mill work plant; install planer and matcher, outside moulder, chain mortiser, straight edge ripping and jointing machine, sash mortiser and relisher pulleys, belting, etc.; expending approx. \$15,000. (See Machinery Wanted—Planning Mill Buggies, etc.).

Fla., Orlando—Teague Furniture Co., capital \$10,000, inctpd. with J. A. Teague, Prest.; Jene Hughey Teague, Secy.-Treas.

Ky., Louisville—Byron Desk Co., capital \$50,000, inctpd. by R. W. Gough, Sevier and R. P. Bonnie.

Miss., Vicksburg—Universal Crate & Box Co., capital \$20,000, inctpd. by J. J. Dahlstrom, J. Ross Holcomb and others.

N. C., Raleigh—Office Furniture—H. S. Storr Co., H. S. Storr, Prest., 116 W. Martin St., will erect 2 story, 60x160 ft. building; construction by owners; install woodworking mch., \$20,000; mfr. office furniture and filing equipment; plant burned at loss of \$80,000. (See Mch. Wanted—Woodworking Machines.)

N. C., Whiteville—Little-Dewey Veneer Co., general office, North Emporia, Va., capital \$100,000, inctpd. with A. Kleinbaum, Prest.-Mgr.; R. W. Little, Secy.-Treas.; has site, will erect plant; install boilers, engine, shafting, pulleys, belting, etc.; construction under supervision of Interstate Veneer Co., North Emporia, Va. (See Mch. Wanted—Boilers; Engine; Building Material; Shafting, etc.)

S. C., Timmonsville—Veneer—Allan Anderson and others plan establishing \$20,000 veneer plant; has 2-acre site.

Tenn., Chattanooga—Flag Poles, etc.—

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## BUILDING NEWS

## BUILDINGS PROPOSED

Chattanooga Wood Products Co., capital \$20,000, inctpd. by D. C. Peglar, T. S. McCallie, S. M. Varnell; has plant corner 28th St.; mfre. flag poles, pegs, etc.

Tex., El Paso—New Rio Grande Furniture Co., Inc., capital \$15,000, chartered by W. Cooley, B. S. Jackson, A. J. Watson.

Tex., San Antonio—Judge Body Corp., capital \$10,000, inctpd. by H. Judge, Wm. C. Cowan and F. Judge.

Va., Norfolk—Barrels—Virginia Wood Products Co., J. B. Steel, Propr. will rebuild burned mill.

## FIRE DAMAGE

Ala., Heflin—Z. T. Chapman's building; W. C. McMahan's office.

Ark., Potter—W. E. Jones' store; loss \$10,000.

Fla., Daytona—Malsby-Conrad Lumber Co.'s storehouses; loss \$75,000.

Ga., Macon — Masse-Fulton Lumber Co.'s plant; loss between \$50,000 and \$75,000.

Ga., Macon—J. M. Dasher Lumber Co.'s dry kiln and lumber; loss \$11,000.

Ky., Covington—Louis Marx & Bros.' store.

Ky., Frankfort—Richard M. McDonald's residence, Thorn Hill; loss \$10,000.

La., New Orleans—Hicks Building, owned by Mason Smith, of Mason Smith & Co.; loss \$250,000.

La., New Orleans—E. J. Louatre Co.'s store on Poydras St.

Md., Laurel—Trebe Inn on Washington-Baltimore Blvd. owned by Wm. Obert.

Miss., Eupora—J. L. Denton's planing mill; loss not estimated.

Mo., Jackson—Central Hotel, G. O. Smith, Prop.

Mo., Marionville—High school. Address Board of Education.

Mo., Sikeston—Sikeston Trust Co.'s building.

N. C., Elizabeth City—Interstate Cooperage Co.'s gum saw mill dept.; loss \$50,000.

N. C., Raleigh—H. S. Storr's office equipment mfg. plant; loss \$80,000.

N. C., Rockingham—T. C. Leak's planing mill; loss \$20,000.

N. C., Salisbury—City stables; address the Mayor.

N. C., Waynesboro—Clarence Houff's building on Wayne Ave.

N. C., Wilmington—Starkey & Goldberg's store.

Okla., Picher—Mogul Mining Co.'s mill, loss not estimated.

S. C., Charleston—E. P. Burton Lumber Co.'s saw mill, boiler and engine room, dust house and machine shops; loss \$400,000.

S. C., Chesnee—Mountain View Hospital, owned by Dr. Jos. B. Cash; loss \$60,000.

S. C., Greenwood—J. W. Sproles Oil Co.'s plant.

Tenn., Chattanooga—Lewis Mfg. Co.'s plant at Forty-eighth St. and Belt Railroad, damaged at loss of about \$15,000.

Tex., Belton—Bassell Bros.' Produce Co.'s building; loss \$25,000; Belton Ice & Fuel Co.'s building; loss \$50,000.

Tex., Bronson—Kirby Lumber Co.'s commissary, W. N. Sangster, Asst. Gen. Mgr.

Tex., Honey Island—Myer Lbr. Co.'s commissary; C. C. Brooks Drug Store; post-office; loss \$20,000.

Va., Fort Myer—Barracks and hospital wing at Fort Myer; loss \$110,000.

Va., Norfolk—Virginia Wood Products Co.'s plant.

W. Va., Clarksburg—George W. Riley's auto top and paint shop in Glen Elk; loss \$10,000.

W. Va., Humboldt—Roman Catholic Church at Annabehn, 30 miles north of Humboldt.

## Apartment Houses.

Fla., Miami—Williams & Dittmar, 127 N. E. 1st Ave., are preparing plans for \$150,000 apartment house, 2nd Ave. and S. W. 3rd Rd.; fireproof; concrete; 82x136 ft.; 5 stories; concrete flat slab floors; concrete foundation and roof; hollow fireproof tile; tile baths, etc.; mail chutes; ventilators; ornamental terra cotta; wire glass. (Lately noted.)

Fla., Tampa—Shawmut Investment Co., Atlanta, will erect 7-story apartment house, Lafayette St. and Crescent Pl.; \$500,000; English basement type; rectangular shape, fronting 113 ft. on Lafayette St.; reinforced concrete and steel; art tile and terra cotta trim; Frigidair iceless refrigeration, Murphy beds, electric ranges, garbage disposal, passenger and freight elevators, etc.; financing by Adair Realty & Investment Co., Atlanta.

Mo., St. Louis—A. J. Francis is interested in syndicate to erect apartment house, 5556-58 Pershing Ave.; \$650,000; 6 stories.

Mo., St. Louis—Sam Koplars plans to erect \$350,000 apartment house. (See Hotels.)

Okla., Tulsa—Robt. E. Adams will erect \$20,000 apartment house, 1212 S. St. Louis St.; brick; 4 suites.

Okla., Tulsa—H. E. Johnston will erect \$22,000 apartment house, 302 S. Guthrie St.; 3 stories; brick.

Tex., Dallas—C. S. Connerty will erect \$13,000 apartment house, 5600-02 Tremont St.; 2 stories; brick veneer; 4 suites.

Tex., Dallas—John W. Tucker will erect two \$15,000 apartment houses, 4100-02 and 4104-06 Swiss St.; brick veneer; 14 rooms; 2 suites.

Tex., Houston—L. W. Lindsay will erect \$10,000 apartment house and garage, Smith St.; 16 rooms.

## Association and Fraternal.

Ga., Savannah — Young Men's Christian Assn. will erect additional story to building; remodel shower baths and pool room; Henrik Wallin, Archt.

Ky., Pikeville—Thos. C. Cecil Lodge, No. 375, will erect 5-story building; 30x100 ft.; hardwood floors; reinforced concrete foundation; metal ceilings; vaults; store on first floor, lodge rooms above; Joseph & Joseph, Archts., Louisville; Frank L. Haynes, Engr., Pikeville. (Previously noted.)

Mo., Kansas City—Young Men's Christian Assn., 10th and Oak Sts., will erect Blue Valley branch, 12th St. and Bennington Ave.; 4 stories; brick walls; reinforced concrete columns and girders; concrete and wood floors; flat roof; \$75,000; Van Brunt & Hertz, Archts., 608 Interstate Bldg.; Fuerel Lowry Eng. Co., Engr., Commerce Bldg.; stone foundation constructed by Fogel Construction Co., who will probably complete building. (Lately noted.)

Tex., Rising Star—Ancient Free and Accepted Masons will erect \$12,500 two-story brick building; First Nat. Bank to occupy first floor, lodge rooms above; install bank fixtures.

Va., Clintwood—Clintwood Lodge No. 66 A. F. & A. M., will erect Masonic Temple and motion picture theatre building; 2 stories and basement; 40x85 ft.; concrete block walls; C. G. Mitchell, Archt., Johnson City, Tenn.; construction to begin in summer.

## Bank and Office.

Fla., Miami—Davenport & Rich Realty Co., will add 7 stories to present 1-story building, 214 N. E. 2nd Ave.; reinforced concrete and hollow tile; 2 elevators; \$140,000; 90 additional office rooms.

Mo., Carthage—First National Bank will remodel and erect 4-story addition adjoining present building; stone front; \$80,000.

Okla., Bartlesville—Phillips Petroleum Co., Frank Phillips, Prest., will add 2 stories to 6-story First Nat. Bank Bldg. for company's offices; \$75,000.

Tenn., Memphis — Waggoner Estate will erect 1-story building, Linden Ave. and Front St. to be leased by Famous Players-Lasky Corp.; fireproof; brick; 60x110 ft.; offices, display and stock room; Hanker & Cairns, Archts.

Tex., Dallas—Mike H. Thomas, M. T. Thomas & Co., will erect 7-story office building, Wood St.; brick; fire-proof; 50x174 ft.; Anton F. Korn, Archt.

W. Va., Charleston—Kanawha Investment Co. will receive bids until March 19 on general and sub-contracts to erect 8-story commercial building, State and Summer Sts.; fireproof; steel and concrete; brick and terra cotta fronts. Address Carmichael & Millsbaugh Co., Archts., Columbus, O., or Peoples' Exchange Bank, Charleston. (Previously noted.)

## Churches.

Ala., Alabama City—Church of the Nazarene, Rev. H. H. Hooper, Dist. Supt., Gadsden, plans to erect building, Sansom Ave. and 5th St.

Ala., Birmingham—Beth-El Congregation, Max Roseman, Prest., will erect temple, Highland Ave. and Beech St.; auditorium to seat 700; stone columns; preliminary plans by Louis M. Kroman.

Fla., Jacksonville — Riverside Baptist Church, Dr. Wm. A. Waldo, Pastor, will erect \$85,000 to \$100,000 auditorium, King and Hershell Sts.

Ga., Donalsonville—Methodist Church, Rev. A. S. Trulock, Pastor, will erect \$20,000 to \$25,000 building with basement; plans by Dr. J. A. Baylor, Board of Extension of M. E. Church, South, Louisville, Ky.; plans ready March 15.

Ga., Gordon — Baptist Church will erect brick building; ground broken. Address The Pastor.

Ga., Waycross—Presbyterian Church, J. R. Whitman, Chmn. Bldg. Comm., will erect \$30,000 building, Gilmore and Williams Sts.; 2½ stories; auditorium and galleries to seat 600; kitchen in basement.

Ky., Middlesboro — First Baptist Church, Rev. Sam P. Martin, D. D., Pastor, plans to erect \$40,000 Sunday school addition, 23rd St. and Cumberland Ave.

La., New Orleans—Church of Our Lady of Holy Rosary will receive bids until March 21 at office Rathbone DeBuys, Archt., Hibernia Bank Bldg., to erect building, Esplanade Ave. and Bayou St. John; steel and concrete faced with pressed brick; limestone trim; copper dome; cork floors; built-up roof; steel sash; hot air heat; \$100,000. (Lately noted.)

Md., Baltimore—All Saints' Catholic

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Church, Rev. Timothy B. Kenny, Pastor, Liberty Hts. and Montgomery Aves., will erect 2-story building adjoining present chapel; brick and stone; accommodate 700.

Miss., Lexington—Presbyterian Church plans to erect building. Address The Pastor.

N. C., Durham — Trinity M. E. Church, South, R. L. Baldwin, Chmn. Bldg., Comm., will erect auditorium, Sunday school and parsonage to replace burned structure; \$275,000; Cram & Ferguson, Archts., 15 Beacon St., Boston, Mass.; T. C. Atwood Organization, Asso. Archts., Durham. (Lately noted.)

N. C., Kinston—First Presbyterian Church, Liston L. Mallard, Chmn. Bldg. Comm., will erect \$30,000 Colonial type building; brick.

N. C., Raleigh—First Christian Church, L. L. Vaughn, Chmn. Bldg. Comm., will erect \$100,000 building, Hillsboro and Dawson Sts.; stone; hardwood floors; ventilators; rolling partitions, main and Sunday school auditoriums combined to seat 1000; G. M. Nelson, Archt., Raleigh and Durham; plans ready in about 6 weeks. Address Mr. Nelson. (Lately noted.)

Okl., Norman—First Methodist Church, Rev. Robt. M. Lebew, Pastor, will erect \$100,000 building to replace burned structure; 2 stories, basement and tower; rough faced brick; auditorium to seat 1200; gymnasium, kitchen, showers, boiler rooms, etc., in basement; install pipe organ later, R. H. Hunt, Archt., James Bldg., Chattanooga, Tenn.

Tenn., Chattanooga—M. E. Church, South, Rev. C. G. Eastwood, Pastor, will erect \$30,000 auditorium and Sunday school building, S. Dodds Ave. and 16th St., Ridgedale; James G. Gaunt, Archt. (Lately noted.)

Tenn., Greenville—Lutheran Church purchased site on E. Church St. and will erect building. Address The Pastor.

Tenn., Knoxville—Magnolia Ave. M. E. Church, R. G. Wright, Chmn. Bldg. Comm., will erect \$140,000 church and \$10,000 parsonage, Magnolia Ave. and Harrison St.; plans by Dr. J. A. Baylor, M. E. Church Extension Board, Louisville, Ky. (Lately noted.)

Tex., Austin—First Congregational Church, Rev. A. O. Stevens, Pastor, will erect building adjacent to University of Texas campus.

Tex., Brownwood — First M. E. Church, South, Rev. C. Q. Smith, Pastor, will erect brick building; electric lights; hot air heat; ventilating system; Wm. C. Meador, Archt., 910 Dan Waggoner Bldg.; bids opened Mar. 8. (Previously noted.)

Tex., Calvert—M. E. Church, South, J. A. Foster, Geo. Whatley, and others, Bldg. Comm. will erect \$20,000 building; P. G. Silber & Co., Archts., San Antonio. (Lately noted.)

Tex., Denton—First Methodist Church will erect \$200,000 plant; main auditorium to seat 1675 to be erected first; Sunday school department to accommodate 1825 to be erected later; R. H. Hunt, Archt., James Bldg., Chattanooga, Tenn. (Lately noted.)

Tex., San Antonio—Beacon Hill Presbyterian Church will erect \$40,000 building, Woodlawn and Michigan Sts.; tile and reinforced concrete; 50x100 ft.; 2 stories; concrete and wood floors; concrete foundation; composition gravel roof; hollow fireproof tile; plaster board; ventilators; rolling partitions; John M. Marriott, Archt., 1001 First Nat. Bank Bldg.; plans ready in 6 weeks. (Lately noted.)

Tex., Smithville—M. E. Church, South, will erect \$20,000 building to replace structure lately noted burned; brick; P. G. Silber & Co., Archts., San Antonio.

Va., Norfolk—Park Place Methodist Church, Dr. Albert E. Wilson, Chmn. Bldg. Comm., 280 Withers Bldg., will rebuild burned structure and also plans to erect Sunday school addition; Wm. Newton Diehl, Archt., New Monroe Bldg. (Lately noted.)

### City and County.

Ky., Louisville—Armory—Jefferson County will erect \$40,000 auxiliary for Jefferson County Armory, Liberty and Cedar Sts.; 1 story; brick; 160x170 ft. Address County Commrs.

Md., Baltimore—Municipal Building—City, August E. Christhill, Ch. Engr., City Hall, will erect building at N. E. cor. Gay and Lexington Sts., to house heating plant for War Memorial Bldg. and provide municipal offices; Laurence Hall Fowler, Archt., 347 N. Charles St.

Md., Baltimore—Stadium—Park Board, J. Cookman Boyd, Prest., will erect entrance building at Baltimore Stadium; Grecian type; 2 stories; colonnades; Josias Pennington, Archt., 330 N. Charles St.; John Hiltz & Sons Co., 343 St. Paul Pl., low bidders at \$168,549. (Lately noted.)

Mo., Cameron—Jail—City considering erecting jail. Address City Council.

Mo., University City (Station of St. Louis)—Engine House, City Hall, etc.—Board of Aldermen will call election April 3 on \$470,000 bonds, including \$45,000 for fire engine house and equipment and \$50,000 to remodel city hall.

### Dwellings.

Ark., Pine Bluff—Geo. Leach, Long Bell Lbr. Co., and J. F. Smith, purchased site in A. W. and Tracy Mills' addition and plan to erect number of dwellings.

Ark., Pine Bluff—W. C. Spikes will erect residence, Olive and 24th Sts.

Fla., Ocala—John H. Taylor will erect \$10,000 native rock residence, E. Fort King St., lately noted; 2 stories and cellar; tile and oak floors; concrete foundation; tile roof; construction by day labor under supervision of Carl Eckhart; sub contracts not let; materials furnished by owner. (See Machinery Wanted—Millwork; Tile.)

Ga., Atlanta—C. M. Marshall postponed erection of residence lately noted and is having plans prepared for smaller house on adjoining site; Wm. J. J. Chase, Archt., Atlanta Trust Bldg.

Ga., Augusta—Dr. W. J. Cranston will erect \$13,000 residence on The Hill; 2 stories; stucco.

La., New Orleans—W. E. Gunde, 203 S. Pierce St., will erect 2 duplex houses, Dublin and Carrollton Sts.; \$10,500.

La., New Orleans—John R. Juden will erect 2-story frame residence, Richmond Pl. near Freret St.; Frank J. MacDonnel; Archt., Hibernia Bldg.

La., New Orleans—Louisiana Ave. Realty Co. will erect \$25,000 double cottage, 3321-23 S. Claiborne St.

Md., Baltimore—Thos. J. Mullan, 3945 Greenmount Ave., will erect 2-story brick dwellings, 643-53 Dumbarton Ave.; \$15,000.

Md., Baltimore—Northwest Real Estate Co., Morris Bldg., will erect 2 two-story frame dwellings and garages, 3601 and 3612 Caddale Ave.; total \$16,000.

Md., Baltimore—Welsh Construction Co., 11 E. Fayette St., will erect 6 bungalows, north side St. Helen's Ave. near Harford Rd.; 1 story; \$18,000.

Md., Baltimore—Cleveland R. Bealmear, 501 Title Bldg., will erect 26 two-story brick

dwellings, 3800-24, 3801-25 Norfolk Ave.; \$80,000.

Md., Baltimore—Broring & Powell Bldg. Co., 2800 Harford Ave., will erect 17 two-story brick dwellings, 1601-33 E. 30th St.; \$50,000; Carey roofs; Chas. Broring, Archt.; owner builds. (Lately noted.)

Md., Baltimore—Cityco Realty Co., 2 E. Lexington St., will erect seventeen 2-story brick dwellings, N. E. cor. Grantley and Willowdale Aves., fourteen, 701-11 and 702-14 McCabe Ave., and five, N. E. cor. Grantley and Towanda Aves., total \$85,000; also four 1-story frame bungalows, north side Cornhill Rd. near Dovedale Rd.; 2-story frame cottage, Cornhill Rd. near Clover Rd.

Md., Baltimore—Wm. J. T. French, 1800 Liberty Hts. Ave., will erect 9 bungalows, S. W. cor. Kathland and Clarendon Aves.; 1 story; frame; \$35,000.

Md., Baltimore—E. J. Gallagher Realty Co., 919 Munsey Bldg., will erect 7 dwellings, 2800-12 Oak St.; 2 stories; brick; five 17x38 ft., one 22x19 ft., one 38x28 ft.; \$35,000.

Md., Baltimore—Mrs. Nettie Goldman, 1200½ W. North Ave., will erect \$20,000 residence and garage, 3305 Fairview Ave.; 2½ stories; brick; 32x57 ft. and 20x30 ft.; hardwood and tile floors; concrete foundation; Spanish tile roof; J. C. Spedden, Archt., 2715 Harlem Ave.; heating and plumbing by owner; electrical work in general contract. (Lately noted.)

Md., Baltimore—James Keelty, 1123 Poplar Grove St., will erect 9 dwellings, 501-17 Collins Ave.; 2 stories; brick; \$30,000.

Md., Baltimore—Loyola Construction Co., 2501 E. Preston St., will erect four 2-story brick dwellings, N. E. cor. Oswego Ave. and Old Pimlico Rd.; two 22x35 ft.; one 25x35 ft.; one 28x70 ft.; also 5 dwellings, N. E. cor. Old Pimlico Rd. and Park Hts. Terrace; three 25x35 ft., two 25x70 ft.; all slag roofs; hot water heat; total \$22,000; R. T. Register, Archt., 2715 St. Paul St.; owner builds. (Lately noted in part.)

Md., Baltimore—Overlea Realty Co., Belmar Ave. and Belair Rd., will erect 4 dwellings, north side Raspe Ave. near Rose Ave.; 1½ stories; frame; \$15,000.

Md., Baltimore—Geo. H. Ward, Mgr., Atlantic Fruit Co., will erect \$11,000 residence, Wendover Rd. near Underwood Rd.; 2 stories; stone. (Lately noted.)

Md., Baltimore—Luther B. Wolf, 3340 Gilman Terrace, will erect 2½-story frame dwelling and garage, north side South Rd. near Hilltop Rd., Mount Washington, \$13,000.

Miss., McComb—John White will erect residence; Kramer & Lindsley, Archts., 50-53 Kress Bldg., Jackson.

Mo., Chillicothe—O. P. Clark will erect residence.

Mo., Jefferson City—J. Frank Morris Investment Co. will erect 15 additional dwellings in Vista Place; brick.

Mo., Jefferson City—D. Peltason will erect residence, Swift's Highway.

Mo., St. Louis—Carroll Berkley purchased tract on Olive Street Rd., west of Spring Ave., St. Louis County, and will erect 45 bungalows; 4 or 5 rooms each; \$115,000.

Mo., Trenton—Ray Thomas will erect residence on Cedar St.

N. C., Charlotte—Dr. Jas. L. Keerans will erect \$11,000 residence, Crescent Ave.

N. C., Durham—M. E. Newsom will erect \$30,000 residence; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and Durham.

N. C., Winston-Salem—Dr. J. B. Whittington will erect \$12,000 residence, Waughtown Rd.



Okla., Tulsa—C. C. Cole will erect \$40,000 residence, 2120 S. Main St., Riverside addition; 2 stories and basement; stone veneer.

Okla., Tulsa—Horn & Oran will erect \$18,000 residence, 205 Sunset Dr.; 2 stories; brick.

S. C., Spartanburg—M. Greenwald, Greenwald's Inc., will erect residence, Pine and Norwood Sts., Twitchell Grove.

Tenn., Chattanooga—W. H. Sears, Archt., will rebuild residence in North Chattanooga lately noted burned; Geo. W. Ballard, to supervise construction.

Tenn., Glendale—Dr. L. E. Brown will erect residence.

Tenn., Glendale—Harry Cobble will erect residence.

Tenn., Glendale—Louis Vetter will erect residence.

Tex., Dallas—W. R. Woodward will erect three 4-room frame cottages, 200 block Collett St. and three, 200 block Garrett St.; \$2000 each.

Tex., Houston—A. C. George Lumber Co., Goose Creek, A. C. George, Prest., purchased 30 lots in Schoeler addition, east of Magnolia Park, and will erect 30 dwellings; \$2000 or more each.

Tex., Houston—Ben M. Levy will erect \$12,000 dwelling, Connor St. and Sul Ross Ave.; 2 stories; brick veneer.

Tex., Houston—Swedman & Page will erect \$18,000 brick veneer dwelling and garage, 201 Avondale Ave.

Tex., Laredo—B. M. Alexander will erect 2-story brick residence; Adams & Adams, Archts., San Antonio.

Tex., San Antonio—Randolph Carter will erect tile and stucco residence, Grammercy Pl.; Beverly W. Spillman, Archt.

Tex., San Antonio—H. Sellinger will erect frame residence, Tobin Hill; David A. Lown, Archt.; bids opened.

Va., Richmond—C. E. Sprengle will erect 2 stucco dwellings, 1610-12 Wilmington Ave.; 2 stories; 32x26x25 ft.; wood floors; brick foundations; tile roofs; hot water heat; electric lights; \$15,000; plans and construction by owner.

Va., Richmond—Morton G. Thalheimer will erect 16 brick dwellings, Leigh St., west of Boulevard; 6 rooms; tile baths; built-in ice boxes; will also erect 4 dwellings on another St.; all West End.

W. Va., Fairmont—R. A. Berry will erect \$10,000 residence, Oakwood addition, 8th Ward; 2 stories; 48x32 ft.; stucco.

### Hospitals Sanitariums, Etc.

Fla., Bradenton—Dr. Chas. W. Larrabee, Larrabee Hospital, will erect \$70,000 hospital, Kentucky Ave.; Spanish type; H-shape; 52x112 ft.; 2 wings, 52x160 ft. each; fireproof; hollow tile and stucco; maple and tile floors; tile walls in operating rooms; ornamental tile and stucco; tile court, 112x52 ft.; 18 private baths; screened porch; roof garden; electric light call system; heating plant in separate building; A. C. Price, Archt. (Previously noted.)

Fla., West Palm Beach—Mrs. Frederick Edey, Mrs. Irving Chase, Mrs. H. A. Henry, and others, are interested in erecting \$25,000 building at Pine Ridge Colored Hospital.

Md., Sykesville—Board of Governors and Visitors of Springfield State Hospital at Room 502, 22 Light St., Baltimore, will receive bids until March 21 to erect 4 buildings for epileptic colony; plans and specifications from office Henry Powell Hopkins, Archt., 347 N. Charles St., Baltimore.

Tex., Houston—City and Harris County,

Dr. J. H. Foster, member of Hospital Bldg. Comm., will erect \$200,000 hospital; 200 beds; plans by W. A. Dowdy, City Archt. (Lately noted.)

### Hotels.

Ala., Montgomery—Heyman, Baron & Wilson, Lessees of Exchange Hotel, are reported to erect 50-room annex; 3 stories; reinforced concrete.

Fla., Bartow—W. H. Warburton, Prop., The Oaks, will erect 50-room addition and remodel present structure.

Fla., Eustis—A. L. Johnson will remodel and erect addition to building on Washington Ave. for hotel to be called Sentinel Inn.

Fla., St. Petersburg—Franklin J. Mason and associates plan to erect \$1,000,000 hotel at 4th St. and 1st Ave.; 9 stories; 225 rooms, dining room, auditorium to accommodate 1500 and roof garden; fireproof.

Fla., Sarasota—Andrew McAnsh, Chicago, will erect Mira-Mar Hotel; 200 rooms with bath; Spanish type.

Fla., West Palm Beach—Mayor L. G. Biggers, Chas. S. Adams, Contr., Pleasantville, N. J.; Jno. F. Ryon, Atlantic City, L. W. Mintzer and others, purchased M. D. Carmichael property, 250x450 ft., between S. Olive St. and lake and plan to erect hotel; fireproof; 400 rooms.

Ga., Atlanta—Massell Realty Co. will erect \$500,000 hotel at Luckie and Cone Sts. to be leased by Heyman, Baron & Wilson; 12 stories; 250 rooms; fireproof.

Mo., St. Louis—Sam Koplar plans to erect 15-story apartment hotel at Pershing Ave. and Union Blvd.; \$1,750,000; 300 apartments and roof garden; also plans to erect \$350,000 apartment house at Enright Ave. and Union Blvd.

N. C., Asheville—Dr. E. W. Grove, St. Louis, will erect 200-room hotel to replace Battery Park Hotel; \$600,000; 10 stories; 90x100 ft.; W. L. Stoddard, Archt., 9 E. 40th St., New York; J. M. Geary, office of Supervising Archt., Treas. Dept., Washington, D. C., will supervise construction; plans ready in about 30 days. (Lately noted.)

Tenn., Cleveland—Inman Street Realty Co. will remodel building at Inman and Church Sts. for hotel; \$10,000; 30 rooms.

Tenn., Memphis—Memphis Hotel Co., A. L. Parker, Mgr., contemplates erection of 600-room hotel at Union Ave. and Second St.; tentative plans by Walter W. Ashschlager, Inc., 65 E. Huron St., Chicago.

W. Va., Matoaka—Crockett Bailey contemplates erection of hotel.

### Miscellaneous.

Fla., Miami—Clubhouse—Miami Anglers' Club, Geo. W. Moore, Prest., plans to erect clubhouse.

Fla., Miami—Restaurant—Michael Klemmer, Marine Cafe, Los Angeles, Cal., is reported to expend \$50,000 to remodel Royalton Hotel for restaurant; dining hall to seat 400.

Md., Chevy Chase—Community and Club Building—Milburn, Helster & Co., Union Savings Bank Bldg., Washington, D. C. and Durham, N. C., are preparing plans for community and club building; will call for bids upon completion of plans.

Mo., Springfield—Clubhouse—North Side Commercial Club will erect 4-story building.

Okla., Guthrie—Home—Masonic Home Commission will complete Masonic Orphans' Home and remodel Scottish Rites Temple for home for dependent Masons and wives.

Tex., Dallas—Museum—Texas Museum of Natural History, Ed. Sewell, Director, 509 Praetorian Bldg., will erect building at Fair Park, Texas State Fair; 50x200 ft.; 1 story; cement floors and foundation; metal doors; tile roof; ornamental terra cotta; steel sash and trim; Lang & Witchell, Archts. (Lately noted.)

W. Va., Welch—Clubhouse—McDowell County Country Club incptd. with \$50,000 capital and will erect clubhouse, swimming pool, construct 9-hole golf course, etc.

W. Va., Wheeling—Clubhouse—Wheeling Tennis Club, Wright Hugus, Prest., will erect clubhouse.

### Railway Stations, Sheds, Etc.

Ga., Augusta—American Railway Express Co. contemplates erection of building at 8th and Walker Sts.

N. C., Kinston—Norfolk-Southern R. R., F. L. Nicholson, Ch. Eng., Norfolk; Atlantic Coast Line R. R., J. E. Willoughby, Ch. Eng., Wilmington, Southern R. R., J. S. Lemon, Ch. Eng., Charlotte; will erect \$50,000 union station; bids opened March 23. (Lately noted.)

N. C., Roxboro—Norfolk & Western R. R., J. E. Crawford, Ch. Eng., Roanoke, Va., will erect freight and passenger station.

Okla., Bristow—St. Louis-San Francisco R. R., F. G. Jonah, Ch. Engr., St. Louis, is reported to erect \$30,000 freight and passenger station.

### Schools.

Ala., Landersville—Lawrence County Board of Education, Moulton, will erect building. (See Ala., Moulton.)

Ala., Montgomery—Board of Education, L. C. Cardinal, Prest., will erect Forest Avenue School; 2 stories and basement; Okel & Cooper, Archts., Vandiver Bldg.; West Jeff Davis School; 2 stories; frame; C. Frank Galliher, Archt., First Natl. Bank Bldg.; I. O. Anderson, lowest bidder at \$83,083 and \$44,944 respectively; also erect Goode Street School; 2 stories and basement; Frederick S. Ausfeld, Archt., Bell Bldg.; Jeffers Bros., lowest bidders at \$71,644. (Lately noted.)

Ala., Moulton—Lawrence County Board of Education will erect buildings at Landersville, Speake, Hatton, Mount Hope and Moulton; also additional room at Mount Moriah. (Lately noted at N. C., Moulton.)

Ala., Mount Hope—Lawrence County Board of Education, Moulton, will erect building. (See Ala., Moulton.)

Ala., Tusculumbia—Board of Education will erect school building; \$125,000 bonds voted.

Ark., Conway—Central College will erect \$75,000 dormitory to be known as Bruce Hall.

La., Gretna—Jefferson Parish School Board, Vic Pitrie, Act. V-P., will receive bids until March 21 to erect schools at Gretna, Westwego and Harvey; Gretna building to be 1 story; 70x130 ft.; 6 classrooms; brick and frame; cement trim; slate roof; steam heat; Westwego, 2 stories; 82x150 ft.; 20 classrooms, library, lecture rooms, laboratories, manual training, domestic science departments, auditorium to seat 700; brick and frame; cast stone trim; tile roof; steam heat; Harvey, 1 story; 54x87 ft.; 4 classrooms; composition and tile roof; frame and stucco; plans and specifications at office Emile Well, Archt., Whitney Central Bldg., New Orleans.

La., Harvey—Jefferson Parish School Board, Vic Pitrie, Act. V-P. will receive bids until March 21 to erect building. (See La., Gretna.)

La., Rayne—School Board will erect high school; plans to issue \$150,000 bonds.

La., Westwego—Jefferson Parish School Board, Vic Pitrie, Act. V-P., will receive

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bids until March 21 to erect building. (See La., Gretna).

Miss., Aberdeen—City voted \$125,000 bonds to erect high school, P. A. Dulin, Chmn. School Trustees. (Lately noted.)

Miss., Anguilla—School Board, Robt. E. Selby, Supt., will erect \$75,000 grammar school; also remodel present building for high school.

Miss., Calhoun City—Board of Education will erect school; Kramer & Lindsley, Archts., Kress Bldg., Jackson.

Miss., Money—Leflore School Board, Greenwood, will consolidate Money, Peterson and Kirby Ridge schools and erect \$30,000 building at Money.

Miss., Pascagoula—City, J. R. Watts, Mayor, defeated \$100,000 bond issue to erect high school. (Lately noted.)

Miss., Vicksburg—City, J. J. Hayes, Mayor, will receive bids until March 19 to erect 2 schools; \$225,000 junior high school on Cherry St.; 3 stories; 24 classrooms, auditorium to seat 1100, domestic science room, kindergarten, laboratory, cafeteria and rest room; W. A. Stanton, Archt.; also \$75,000 Magnolia Ave. colored school; 24 classrooms; auditorium to seat 800 to 1000; M. J. Donovan, Archt.; both structures fireproof; brick; terra cotta trim; plans and specifications at office City Clerk; following contractors estimating: Underwood Contracting Co., New Orleans, La.; Currie & Dyer, Jackson, Miss.; Burkes & Haley, Baton Rouge, La.; T. S. Moudy & Co., Chattanooga, Tenn.; W. C. Stout, Cleveland, Miss.; Clark Building Material Co., Jackson, Miss.; D. D. Thomas & Sons, Memphis, Tenn.; Luken Steel Co., New Orleans, La.; S. W. Leard, Rosedale, Miss.; Southern Equipment Co., Laurel, Miss.; Michael Supply Co., Talladega, Ala.; Walker Bros., Fayette, Ala.; Smallman-Brice Constr. Co., Birmingham, Ala.; Cambre Bros., Jackson, Miss.; Circle Constr. Co., 59 Pearl St., New York; Atlanta Builders' Exchange, Atlanta, Ga.; E. G. Parish Constr. Co., Jackson, Miss.; J. V. & R. T. Burkes, New Orleans, La. (Lately noted.)

Miss., Yazoo City—Yazoo County School Board will consolidate O'Neal, Valley, Kayes, Manor, March and Robinette schools and erect building.

Mo., Aurora—Board of Education will erect high school; 3 stories; fireproof; \$75,000 bonds available; Earl Hawkins & Co., Archts., Springfield. (Lately noted.)

Mo., Bevier—Bevier Special School Dist. Trustees will erect addition to Central School; election April 3 on \$20,000 bonds.

Mo., Boonville—Kemper Military School will erect gymnasium; \$100,000.

Mo., Bowling Green—Board of Education plans to erect high school; election March 16 on \$75,000 bonds.

Mo., Brandsville—Board of Education will erect high school; \$19,450 bonds voted. (Lately noted.)

Mo., Buckner—School Board will erect high and grade school; \$45,000 bonds voted.

Mo., Kansas City—Kansas City-Western Dental College will erect \$90,000 building, 10th St. and Troost Ave.; 3 stories; brick; terra cotta trim; also remodel present structure for offices and laboratories; Clifton B. Sloan, Archt.

Mo., Laddonia—School Board will erect high school; \$40,000; 2 stories; 12 rooms and auditorium; fireproof; Earl Hawkins & Co., Archts., Springfield.

Mo., Plattsburg—School Board plans to erect high school; election March 20 on \$38,500 bonds.

Mo., Wellston (Sta. St. Louis)—Board of Education will erect \$125,000 high school at Ella and Evergreen Aves.; 10 classrooms, gymnasium and auditorium to seat 700; bonds voted.

N. C., Bailey—School Board, A. B. Farmer, Secy., will receive bids until March 23 to erect Bailey High School; plans and specifications at office Benton & Benton, Archts., Wilson. (Lately noted.)

N. C., Hazelwood—Haywood County Board of Education, A. C. Reynolds, Supt., will receive bids until March 19 to erect school; plans and specifications at office A. C. Reynolds, Waynesville, N. C., and R. L. Prevost, Hazelwood.

N. C., Louisburg—School Board, W. H. Yarbrough, Chmn., will receive bids until March 26 to erect high school; separate bids for heating and plumbing; plans and specifications at office Frank B. Simpson, Archt., Raleigh.

N. C., Sharon—Trustees, Sharon School Dist. No. 3 plan to erect \$18,000 to \$20,000 building; 6 to 8 rooms; brick; election probably April 23 on bonds.

Okl., Harmony—School Trustees, Harmony Dist. No. 50, plans to erect building; election March 12 on \$30,000 bonds.

Okl., Miami—City, W. L. McWilliams, Mayor, will erect high school; \$100,000; Simpson & Flawn, Archts., Carthage, Mo. (Lately noted.)

Tenn., Bristol—City will vote April 14 on \$25,000 school bonds. Address School Board.

Tenn., Chattanooga—Board of Education plans to erect grammar schools in First District, Third District, Oak Grove, Park Place and Jefferson Street.

Tenn., Paris—School Board, J. T. Porter, Chmn. Comm., contemplates erection of building.

Tex., Dallas—Southern Presbyterian Church, Dr. Brooks I. Dickey, Executive Secy., Comm., will erect school for Mexican girls.

Tex., El Dorado—School Board will erect building; 2 stories; 16 rooms; bids opened March 15; plans and specifications at office Thompson & Harding, Archts.

Tex., Memphis—School Board, C. W. Broom, Prest., will erect high school; bids opened March 12; Rittenberry & Kaufman, Archts., Amarillo.

Tex., Nederland—Nederland Independent School Dist. Trustees will erect high school; \$100,000 bonds voted.

Tex., Orange—School Board, Mrs. Ida M. Neff, Prest., will receive bids until March 16 to erect Anderson School; plans and specifications at office C. H. Page & Bro., Archts., Austin.

Va., Bristol—School Board, H. G. Lavinder, Chmn., will receive bids until March 30 to erect 20-room grade school; separate bids for general construction, heating and ventilation, plumbing and wiring; plans call for \$140,000 structure; 3 stories; 233x90 ft.; brick; Barrett roof; concrete corridors, other floors wood; concrete foundation; hollow fireproof tile; steel sash and trim; vacuum steam heat; plans and specifications at office D. R. Beeson, Archt., Johnson City, Tenn., and B. E. Ballard, Clerk, City Council, Bristol. (Lately noted.)

Va., Charlottesville—City will vote April 10 on \$290,000 school bonds and \$25,000 bonds to pay for remodeling armory. Address The Mayor.

Va., Fredericksburg—Fredericksburg State Normal School will erect \$40,000 dormitory; Philip N. Stern, Archt.

## Stores.

Ala., Gadsden—W. T. Cox will erect \$10,000 business building.

Ala., Tuscaloosa—Chas. Temerson & Sons will erect building at 2300 Fourth St. to be leased by Tyler Grocery Co., Birmingham; brick; concrete foundation.

Ark., Pine Bluff—Gould-Galbraith Supply Co., Harry Rosenberg, Secy.-Mgr., 5th Ave. and Pine St., will erect \$45,000 building to replace structure lately noted burned; 2 stories; 115x150 ft.

Ark., Pocahontas—J. C. Bowers has contract to erect store and office building on Court Square; 35x90 ft.; 2 stories and basement.

D. C., Washington—Lansburgh & Bro. will erect \$200,000 addition to department store on south side; also having plans prepared for present store on north side to cost \$600,000; erect \$100,000 warehouse; Milburn, Helster & Co., Archts., Union Savings Bank Bldg.

Fla., Miami—Chas. M. Eaton will erect several stores and filling station, S. W. 8th St. and S. W. Second Ave.

Fla., Sebring—P. L. Vinson will erect 2-story brick and tile business building; \$12,000.

Fla., West Palm Beach—Chas. S. Rice will erect mercantile building, Nottingham Blvd. and Dixie Highway.

Ky., Louisville—J. Bacon & Sons, A. H. Morris, Prest.-Gen. Mgr., will remodel store at 330-34 W. Market St.; \$50,000; 5000 sq. ft. floor space.

La., New Orleans—Standard Supply & Hardware Co., 822 Tchoupitoulas St., will erect 1-story addition to building; 50x130 ft.; brick; steel sash; Francis J. McDonnell, Archt., Hibernia Bldg.

Mo., St. Louis—S. Van Raalte Investment Co., Simon Van Raalte, Prest., will erect department store, Grand Blvd. and Morgan St.; \$1,000,000.

N. C., Asheville—Bryant Motor Sales will erect \$85,000 building at Patton Ave. and Coxe St.; 3 stories.

N. C., Selma—Chas. Talton will erect brick building on E. Railroad St.

Okl., Okmulgee—F. W. Woolworth Co., will remodel old Bank of Commerce building for store; G. Beltz, Archt., Dallas, Tex.

S. C., Hardeeville—C. M. McTeer will erect brick mercantile building; construction under supervision of Mr. Guilford, Walterboro.

Tex., Dallas—K. T. Barnaby, New York, is reported to erect \$1,000,000 building at Elm and St. Paul Sts. for stores; 10 to 12 stories; to be leased by McNeny & McNeny.

Tex., Dallas—J. P. Haven will erect \$10,000 store, 2009 Elm St.; 2 stories; brick.

Tex., Marlin—S. A. Silverman will erect building on Live Oak St.; 1 story; 40x110 ft.; brick.

Tex., Orange—Skolsky Bros. will erect 2-story department store.

Tex., San Antonio—David A. Lown prepared plans for 2-story brick store and hotel on W. Houston St.

Tex., San Antonio—V. R. Hood will erect \$12,000 addition to building on Soledad St.; 2 stories and basement.

Tex., Waco—L. B. Smyth will erect building at Franklin and 7th Sts.; \$50,000; 2 stories; 85x165 ft.; Birch D. Easterwood, Archt.

Va., Bristol—J. H. Faucette will erect 2-story brick building, W. State St. near 9th St.; \$15,000.

Va., Richmond—Morton G. Thalheimer plans to erect several stores and motion picture theater on Brooklyn Park, Barton Heights.



**Theatres.**

Ark., Mena—Lyric Theater, Price McCall, Mgr., will erect \$15,000 building on Mena St.; 50x140 ft.; stone.

Fla., Tampa—Consolidated Amusements, Inc. will erect motion picture theater on Franklin St.; seat 1200; marble and tile front.

N. C., Charlotte—J. H. Cutter will erect \$200,000 building on W. Trade St. for theater, stores and offices; 3 stories; W. L. Hunter, Archt., New York. (Lately noted.)

N. C., Salisbury—J. M. Davis and associates will erect motion picture and vaudeville theater on W. Inniss St.; to seat 1500.

**Warehouses.**

D. C., Washington—Lansburgh & Bro. will erect \$100,000 warehouse; Milburn, Helster & Co., Archts., Union Savings Bank Bldg. (See Stores.)

Fla., Miami—City, W. H. Wharton, Mgr., will receive bids until March 20 to erect

\$12,000 addition to freight warehouse for Baltimore-Carolina Steamship Co.; 50x179½ ft.; 1 story; concrete floors; composition roof; H. H. Mundy, Archt.; C. W. Murray, Engr. (Lately noted.)

Ga., Macon—Willingham Sash & Door Co. will erect warehouse.

Md., Frederick—Potomac Public Service Co. will erect \$25,000 storage building; 100,000 cu. ft. space.

Mo., St. Charles—International Shoe Co. will erect brick storage building, 5th and Pike Sts.

N. C., Roxboro—Farmers' Cooperative Warehouse Co., J. F. Reems, Prest., will erect warehouse.

Tenn., Knoxville—Eugene Galvon, Prest., Knoxville Lumber & Mfg. Co., Hugh M. Johnson, W. O. Whittle and others plan to erect \$200,000 bonded warehouse on Park Ave.

Tenn., Paris—Dark Tobacco Growers' Cooperative Assn., C. V. Ezell, Director, will erect warehouse.

**Dwellings.**

Fla., Tampa—Temple Terraces, Inc., will erect 120 dwellings at Temple Terraces, 9 miles from Tampa; \$5000 up; Newark Housing Corp. contr. for 100 dwellings; Temple Terraces Construction Co., branch of New Britain, Conn., Construction Co., contr. for 20 dwellings; also let contract to construct swimming pools, etc.; total \$1,500,000.

Ga., Rome—Anchor Duck Mills will erect 10 employees dwellings; contract let.

Ga., Rome—D. Corenblum let contract to erect 4 bungalows on E. 1st St.

La., New Orleans—Hugo Weidman will erect \$12,000 residence, Audubon Blvd. near Spruce St.; 2 stories; hollow tile; Sam Stone, Jr., Archt., 714 Union St.; T. H. Brockman, Contr., 1525 Verna St. (Lately noted.)

Md., Baltimore—John K. Krener, 210 E. Lanvale St., will erect \$13,500 2-story duplex cottage, 3509 Edgewood Rd.; 32x42 ft.; hardwood floors; stone foundation; slate roof; double garage; Herbert C. Aiken, Archt., 3509 Edgewood Ave.; John F. Hardy, Contr., Groveland Ave.

Miss., Crystal Springs—J. P. K. Grice, Mgr., Wise Automobile Co., will erect residence, E. Georgetown St.; Mr. Carlson, Contr., near Gallman.

Mo., Cape Girardeau—Popp & Springer Realty Co., First Nat. Bank Bldg., let contract to erect 3 bungalows, Locust and Sprigg Sts.; also plans to erect several more.

Mo., Columbia—Presbyterian Church will erect brick manse; 3 stories including basement; 38x38 ft.; oak and concrete floors; concrete foundation; asbestos roof; \$10,000; plans by American Face Brick Assn., Chicago; A. G. Krumm & Co., Contrs., Pilot Grove; Mr. Matthews, Columbia, heating; Henry Stretz & Sons, Boonville, brick work; plumbing not let. (Lately noted.)

Tex., Dallas—B. C. Lucas, Pres., Dallas Development Co., will erect \$20,200 residence, Westwick Rd. and University Blvd.; brick veneer; 2 stories; oak floors; concrete foundation; tile roof; gas furnace heat; Russell Brown Co., Archt.-Contr., Magnolia Bldg. (Lately noted.)

Tex., San Antonio—E. J. Altgelt will erect \$23,000 residence, Fredericksburg Rd.; 1 story; stone; Chas. T. Boelhauwe, Archt.; Walsh & Burney, Contrs.

Tex., San Antonio—E. H. Nielson will erect frame residence, McCullough and Locust Sts.; V. L. Rasmussen, Contr.

Va., Richmond—J. D. Carneal, 12 N. 9th St., will erect 2 brick dwellings, 3106-08 Patterson Ave.; \$28,000 each; 3 stories; 52x34x37 ft.; wood floors; brick foundations; slate roofs; steam heat; electric lights; Lindner & Phillips, Archts., American Nat. Bank Bldg.; Chas. Phillips, Contr., American Nat. Bank Bldg.

W. Va., Weston—W. M. Taylor will erect 1-story and basement residence in Halesville; tile, wood and plaster; 28x48 ft.; oak floors; slate roof; plans by owner; James Lockhard, Contr.; Simpson Bros., heating. (Lately noted.)

**Government and State.**

Va., Accomac—Post Office—Accomac Building Corp., G. Walter Mapp, Prest., organized to erect post office building, Main St.; 1 story; 22x52 ft.; brick; equipment, including steel screen with 200 lock boxes; S. J. Stevenson & Son, Contrs.

**Hospitals Sanitariums, Etc.**

Miss., Gulfport—Bureau of Yards & Docks, L. E. Gregory, Ch., Washington, D. C., will erect 6 additional buildings at U. S. Veter-

**BUILDING CONTRACTS AWARDED****Apartment Houses.**

Ga., Macon—H. D. Kaplan will erect \$30,000 apartment house, 813 Cherry St.; brick veneer; 6 suites; F. Joe Bishop, Contr.

Okl., Tulsa—D. C. Shelton will erect \$37,000 apartment house, 8th and Detroit Sts.; 4 stories; G. A. Morrow & Sons, Contrs.

Okl., Tulsa—O. F. Smith will erect \$30,000 apartment house, 7th and Columbia Sts.; R. M. Gillian, Contr.

Tenn., Chattanooga—Fred Little will erect 2-story apartment house, Battery Pl. near Houston St.; 2 stories; brick veneer; 44x51 ft.; 4 suites of 4 rooms each; \$16,000; Stewart Construction Co., Contr.

Tenn., Memphis—Mrs. J. B. Cook will erect brick veneer apartment house, 1995 Union Ave.; \$30,000; 2 stories; wood floors; concrete foundation; composition shingle roof; 4 suites of 5 rooms each; Jas. L. Gatling, Archt.; H. B. Burke, Contr.; Southern Heating Co., hot water heat; Pritchard Bros., plumbing; foundation in. (Lately noted.)

W. Va., Charleston—Simon Cohen will erect 4-family apartment house, Michigan Ave. and Washington St.; \$10,000; 2 stories; brick and tile; 16 rooms; J. H. Love, Contr.

**Bank and Office.**

Ark., Nashville—Planters Bank & Trust Co. will erect \$40,000 building; Main and Howard Sts.; A. B. Cupp, Contr.

La., Shreveport—J. B. Slattery will erect 16-story office building, Texas and Marshall Sts.; 80x150 ft.; steel, reinforced concrete and brick, faced with terra cotta; granite trim; cast stone work; Barrett 20-yr. tar and gravel roof; steel sash; wire glass; steam heat; refrigerating system; 5 elevators; \$1,019,000; Mann & Stern, Archts., A. O. U. W. Bldg., Little Rock; Central Contracting Co., Contrs., Shreveport. (Previously noted.)

N. C., North Wilkesboro—Bank of North Wilkesboro will erect \$60,000 to \$70,000 office and store building, B and 9th Sts.; brick; 50x140 ft.; 2 stories; wood joist construction and hardwood floors; built-up roof; C. C. Hartman, Archt., Greensboro; Foster & Allen, Contrs. on cost plus basis; F. S. V. Tomlinson, excavation; Meadows, Frazier & King, pouring concrete for footings and vault; plumbing, heating, wiring and practically all material contracts let. (Lately noted.)

Tex., Taft—Coleman-Fulton Pasture Co. will erect brick and concrete bank and office building; \$45,000; Sumner-Sollitt Co., Contr., El Paso; construction begun.

Va., Clintwood—Chase & McCoy will erect fireproof office building; 2 stories and basement; concrete foundation; brick; tile partitions; reinforced concrete floors; metal windows; steel and concrete stairways; C. G. Mitchell, Archt., Johnson City, Tenn.; D. G. Kelley, Contr., Clintwood.

**Churches.**

Ala., Tuscaloosa—First Baptist Church, Robinson Brown, Chmn. Bldg. Comm., will erect \$80,000 building; brick and concrete; 3 stories; 84x120 ft.; concrete and wood floors; brick foundation; composition shingle roof; R. H. Hunt, Archt., Chattanooga, Tenn.; N. O. Patterson, Supervising Archt.-Contr., Tuscaloosa.

Mo., Kansas City—Central Presbyterian Church, Armour Blvd. and Campbell St., will complete building; basement and 1 story already finished; \$170,000; Sheppard & Wiser, Archts.-Constr. Supervisors; L. Breitag & Son, Contrs.

Tex., Austin—First Methodist Church, R. W. Finley, Chmn. Bldg. Comm., will erect \$200,000 building, 12th and Colorado Sts.; brick and artificial stone; 4 stories; steel frame; 90x128 ft.; concrete floors; mezzanine; ornamental plaster; Sanguinet, Staats, Hedrick & Gottlieb, Archts., First Nat. Bank Bldg., Fort Worth; Roy L. Thomas, Asso. Archt., Littlefield Bldg., Austin; L. G. Knappe, Contr. (Lately noted.)

Tex., Clarksville—Presbyterian Church will erect building; Curtis & Lightfoot, Archts., Paris; Lee Hays, Contr., Clarksville, in market for reinforcing steel, metal shingles, metal ceilings, car of face brick and car of common brick, water proofing, gravel and sand and raising partitions.

Tex., Fort Worth—First Baptist Church, Dr. J. Frank Norris, Pastor, will erect \$150,000 addition to auditorium; accommodate 1500 additional; O. H. Atkinson, Archt.; contract let. (Lately noted.)

Va., Danville—Mount Vernon Methodist Church will remodel Sunday school; \$30,000; Anderson & Hunter, Contrs. (Lately noted.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

ans' Hospital, including heating, electric work, power plant, grading walks, paving, etc.; medical, administration and clinic building, 3 stories, 44x272 ft.; educational building, 2 stories, 93x255 ft.; floors and corridors faced with marble and tile; subsistence stores building, H-shape, 50x155 ft.; another structure, 40x87 ft.; building to connect last two, 38x62 ft.; all 2 stories; building for disturbed patients, 2 stories, 78x122 ft.; boiler house, 2 stories with mezzanine floor, 49x72 ft., steel frame, metal sash; reinforced concrete floor slabs; hollow tile partition walls; faced with brick, stucco and terra-cotta; limestone trim; Spanish tile and 5-ply, built-up roofs; floors and stair treads covered with composition flooring; screened windows; steam heat; 800 ft. of slate covered walks, 8 ft. wide and 9 ft. high; terra cotta pipe sewerage line; cast iron water pipe line; macadam roadway; Algernon Blair, Montgomery, Ala., general contr. at \$498,580; Hamilton Bros. Co., Gulfport, contr., \$45,802, for water, sewer and drainage; Wm. Wilby, Selma, Ala., contr., \$60,621, for inside heating and outside steam, etc.; Herman Androe, Milwaukee, Wis., contr., \$25,022, for electric work; Frank J. Eisinger, Brooklyn, N. Y., contr. \$53,594, for boiler house. (Lately noted.)

S. C., Greenville—Dr. J. W. Jervey will erect \$20,000 eye, ear, nose and throat hospital; 38x76 ft.; fireproof; brick; F. M. & J. G. Cunningham, Archts.; M. T. Loftis, Contr.

Va., Charlottesville—State Board of Health will erect 4 dwellings at Blue Ridge Tuberculosis Sanatorium, southeast of Charlottesville; \$25,000; hollow tile; 2 stories; 36x42 ft.; wood floors; concrete foundation; tin roofs; Eugene Bradbury, Archt.; Charlottesville Lumber Co., Contr.; Charlottesville Electric Co., electric wiring; Lacy & Barnett, plumbing; T. W. Draper, plaster and stucco; C. C. Wheat, roofing and sheet metal. (Lately noted.)

### Hotels.

Ala., Montgomery—N. J. Bell Estate will erect \$200,000 hotel; 74x121 ft.; 6 stories; 112 rooms with private bath; fireproof; Indiana limestone, reinforced concrete, steel, brick and hollow tile; marble wainscoting; tile baths; Okel & Cooper, Archts., Vandiver Bldg.; J. O. Estes, Contr.

Fla., Miami Beach—Bay Shore Corp., incptd. with \$500,000 capital by O. M. Fowler, Prest., Indianapolis, Ind.; Carl G. Fisher, Miami, and R. K. Leblond, Cincinnati, O., V.-Ps.; Thos. H. Pancoast, Secy-Treas., Miami, will erect Nautilus Hotel on Biscayne Bay; \$1,500,000; 6 stories; 200 rooms; concrete, hollow tile and terra cotta; hollow tile and concrete floors; concrete foundation; composition room; steam heat; 2 passenger and 2 service elevators; Schultze & Weaver, Archts., New York; Geo. A. Fuller Co., Contr., 940 H Broadway, New York. (Lately noted.)

Fla., Miami Beach—Columbus H. Boyles will erect 12-story hotel \$1,500,000; 300 rooms with bath; fireproof; steel frame; steel lumber joists; concrete floors; tile baths; three 400 ft. elevators; Lee L. Wade, Archt.; A. B. Wade & Son, Contrs., 318-19 Townley Bldg., Miami.

Fla., Miami Beach—Peter M. Chamberlain, Marlborough Hotel, will erect \$480,000 hotel in Fairview subdivision to be known as Pelican Hotel; Moorish type; 4 stories; fireproof; hollow tile and stucco; terrazzo, hardwood, concrete and wood floors; tile roof; metal doors; wire glass; August Geiger, Archt., Miami; R. B. Warner, Asso. Archt., Springfield, Mass.; P. J. Davis, Contr., Miami. (Lately noted.)

S. C., Charleston—Edw. J. Murphy will erect Fort Sumter Hotel at foot of King St.; \$405,000; 7 stories; 185 rooms; fireproof; reinforced concrete, hollow and interior tile; concrete and tile floors; concrete foundation; built up tar and gravel roof; metal doors; vaults; ventilators; 2 passenger and 1 freight elevators; G. Lloyd Preacher & Co., Archts., Healey Bldg., Atlanta, Ga.; J. E. Beaman Construction Co., Contr., Raleigh, N. C.; Hardy Electric, Plumbing & Heating Co., Savannah, heating, plumbing and lighting. (Lately noted.)

### Miscellaneous.

Tex., Houston—Museum—Houston Art League, Dr. Jos. Mullen, Chmn., Bd. of Trustees, will erect \$119,300 building first of 4 units; 2 stories and basement; 86x64 ft.; Greek architecture; Texas limestone; concrete foundation; terrazzo floors; copper roof; Wm. Ward Watkins and Ralph Adams Cram, Archts.; Don Hall, Contr., Carter Bldg.; Toebe Bros., lighting; Reo. Robiseling, plumbing. (Previously noted.)

Tex., Waco—Grand Stand—Baseball Club will erect grand stand at Katy Park; Roy E. Lane, Archt.; Sparks & Williamson, Contrs.

### Schools.

D. C., Washington—St. Paul's Catholic Church will erect parochial school, 15th and V Sts., N. W.; \$159,500; 85x140 ft.; stone; Milburn, Heister & Co., Archts., Union Savings Bank Bldg.; Schneider-Spleidt Co., Contr.

Ga., Athens—University of Georgia Alumni Assn., Harry Hodgson, Chmn., Bldg. Comm., will complete memorial hall; \$182,000; Smallman-Brice Construction Co., Contr., Birmingham, Ala. (Lately noted.)

Ga., Macon—Bibb County Board of Education will erect Virgil Powers School; \$85,000; 16 classrooms; fireproof; brick; Dunwoody & Oliphant and Dennis & Dennis, Asso. Archts.; C. H. Van Ormer, Contr.; H. E. Lowe Electric Co., electrical work; O'Pry Heating & Plumbing Co., heating; Macon Plumbing & Heating Co., plumbing. (Lately noted.)

La., Baton Rouge—Louisiana State University, R. L. Himes, Secy., will erect main engineering building and agricultural group; former, 218x60 ft.; latter to consist of 3 buildings connected by cloister to be 35x210 ft., for home economics department, extension service and animal industry; all structures steel and reinforced concrete with hollow tile walls and brick and stucco facing; composition floors; tile roof; metal sash and cast stone; Theo. C. Link, Archt., fourth floor of Capitol; Caldwell Bros., contrs. at \$177,080 and \$386,000 respectively. (Lately noted.)

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will erect Forest Park Senior Junior High School; U Shape; main building, 377 ft. long; longest wing, 164 ft.; 4 stories; wing in rear for gymnasium, power house and lunch room; 113x165 ft.; reinforced concrete and brick; Parker, Thomas & Rice, Archts., Union Trust Bldg.; J. Henry Miller, Inc., Contr., Eutaw and Franklin Sts., both Baltimore; Divine Millwork Co., Wilmington, N. C., millwork. (Previously noted.)

Miss., Carriere—School Trustees will erect \$31,000 building; 3 stories; 50x109 ft. with 40x80 ft. wing; 3 stories; brick and hollow fireproof tile; concrete and brick foundation; Johns Manville roof; wood and concrete floors; metal ceilings; metal doors; ventilators; ornamental terra cotta; steam heat; A. G. Bear, Archt., Wells Fargo Bldg., New Orleans; J. C. Jones, 8209 Nelson St., New

Orleans, heating and plumbing; Turner & Co., Mobile, Ala., mill work. (Lately noted.)

Mo., Vandalia—Board of Education will erect high school; \$62,228; J. H. Hansen Construction Co., Contr.; Sarcoxi; Ball & Neal, Fulton, heating and plumbing.

N. C., Raleigh—Shaw University, Dr. J. Peacock, Prest., will erect Leonard Medical Building; \$65,000; H. P. S. Keller, Archt.; C. V. York & Co., Contrs. (Lately noted.)

N. C., Trenton—School Board will erect \$60,000 building; contract let; E. O. Moore, Kinston, heating.

N. C., Sparta—Alleghany County Board of Education will erect 8-room school; \$28,791; auditorium to seat 600; brick; asphalt shingle roof; steam heat; A. L. Barbour, Contr., Newland.

S. C., Lake City—City School Board, W. W. Singletary, Secy., will erect \$49,000 high school; 2 stories; 140x66 ft.; brick; terra cotta trim; wood floors; Barrett roof; concrete foundation; W. J. Wilkins & Co., Archts.; Haynesworth & Stuckey, P. O. Box 633; Bryce Plumbing & Heating Co., heating and plumbing; Fortner Electric Co., conduit system of lighting; all Florence. (Lately noted.)

### Stores.

Ark., Pocahontas—J. W. Shannon will erect store and apartment building; 2 stories; brick; J. C. Bowers, Contr.

Md., Baltimore—W. T. Grant Co., 28 W. 23rd St., New York, will remodel building at 212-16 and 218-20 W. Lexington St.; \$145,000; 4 and 5 stories; 80x200 ft.; fireproof; brick; wood joists; maple and concrete floors; steel and concrete foundation; tin roof; interior tile vault lights; A. F. Evans, Archt., 28 W. 23rd St., New York; Eadie, Freund & Campbell, Heating Engrs., 7 W. 45th St., New York; Thos. Hicks & Sons, Contrs., 106 E. Madison St., Baltimore; Otis Elevator Co., 218 W. Franklin St., Baltimore, freight electric elevator, 4000 lb. capacity. (Lately noted.)

Tenn., Knoxville—Arthur Groves will erect 4 stores on State St.; \$20,000; 2 stories; brick; H. P. Nelson, Contr.

Tenn., Memphis—Ostrich Interests will erect 2-story addition and remodel buildings at Third and Vance Sts.; \$12,000; brick; W. C. Lester, Archt.; Ozanne Construction Co., Contr.

Va., Norfolk—D. Pender Grocery Co. will erect \$115,000 building, Cove and Bank Sts.; 75x44 ft.; 4 stories; fireproof; brick; stores on first floor; offices above; Wm. Newton Diehl, Archt.; Logan McCloud, Contr.

### Theaters.

Mo., Kansas City—Tri-State Realty Co. will erect theater and hotel, Main and Walnut Sts.; \$700,000 theater to seat 1500; hotel, 6 stories; 125 rooms; both structures fireproof; Shepard & Wiser, Archts.; Pratt-Thompson Constr. Co., Contr.

### Warehouses.

Miss., Crystal Springs—Wise Automobile Co., I. P. K. Grice, Mgr., will erect warehouse; contract let.

Okla., Sapulpa—Atlas Supply Co. will erect warehouse; R. F. Farmer, Contr., Neosho, Mo.

Tenn., Chattanooga—Casey & Hedges Co., M. M. Hedges, Prest., will erect \$27,092 warehouse; 150x144 ft.; steel; concrete floors and foundation; gravel roof; C. E. Bearden, Archt.; Chambers & Son, Contrs. (Lately noted.)



# MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Air Lift System.**—William Kirten, Secy., Lake Village, Ark.—Invite bids for installation of a system of air lift to pump water from its deep well to tank which is 140 ft. above surface of ground.

**Alternator.**—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers' prices on 200 KVA. 3-phase, 60-cycle, 2300-volt alternator not over 260 R.P.M.

**Bee Comb Foundation Machine.**—New. Williams Mill Co., North Wilkesboro, N. C.—To purchase machine for making bee comb foundation from old beeswax; machine is made in rolls and press style.

**Belting**—See Shafting, etc.

**Boilers.**—Coggins Marble Co., Canton, Ga.—Prices on two 125 H. P. boilers 80 to 100 lbs. pressure, steel case or one 250 H. P. boiler, used mchy.; subject to inspection; immediate delivery.

**Boiler.**—Monroe Sand & Gravel Co., Monroe, La.—To purchase 150 H. P. locomotive type boiler, second-hand if in good condition.

**Boilers.**—Interstate Veneer Co., Inc., North North Emporia, Va.—To purchase two 100 h. p. boilers.

**Bottles.**—See Containers, etc.

**Brick.**—F. E. Hatch, Lanier Power Co., Milltown, Ga.—In market for brick sufficient for canal 15 ft. deep, 30 ft. wide and 3160 ft. long.

**Brick Stack.**—Comms. of Public Works, L. A. Walker, Summersville, S. C.—Blue prints for brick stack, 80 ft. high, to take care of two 200 H. P. boiler.

**Bridge Construction.**—Cumberland County Comms., C. C. Howard, Clk., Fayetteville, N. C.—Bids until Apr. 2 for 80-ft. 1-span steel bridge, 16-ft. driveway.

**Broom Handle Machinery.**—J. A. Roer Roell, 645 N. Congress St., Jackson, Miss.—To correspond with mfrs. of broom handle mchy.

**Building Materials.**—Interstate Veneer Co., Inc., North Emporia, Va.—To purchase galvanized iron, cement, etc.

**Car (Private).**—F. W. Warren, Purchasing Agts., Box 223, Houston, Tex.—Private car, 60 to 70-ft. long, prefer steel underframe construction.

**Cars (Dump).**—See Mining Equipment.

**Cars (Tank).**—F. W. Warren, Purchasing Agt., Box 223, Houston, Tex.—8000 to 10,000 gal. second-hand tank cars, built not later than 1918.

**Castings, etc.**—U. S. Engr. Office, Florence, Ala.—Bids until April 2 to furnish head-gate track, screen track, seal castings, vent-outlet castings, together with bell mouth castings, etc., for the power house section of Wilson dam.

**Coal.**—City Purchasing Agents' Office, Norfolk, Va.—Bids until March 20 to furnish 10,000 to 12,000 tons of Pocahontas straight R. O. M. steam coal; beginning April 1, 1923, ending March 31, 1924; also 500 to 1000 lump and manufactured coal; prices based on f. o. b. cars mines and freight rate; W. H. C. Ransone, City Pur. Agt.

**Coke Crusher.**—Beckerley & Trusler, 614 E. Lombard St., Baltimore, Md.—To purchase coke crusher; state price and delivery.

**Containers, etc.**—Herbolac Co., Barboursville, Ky.—To correspond with mfrs. of bottles, cartons, paper boxes, etc., for drug company.

**Crane.**—A. C. Smith, Mgr., American Iron Works, Box 138, Kernersville, N. C.—Prices on crane suitable for 2-ton capacity cupola.

**Crane (Locomotive).**—G. R. Mueller (Mchy. Dealers), Brown Marx Bldg., Birmingham, Ala.—Dealers prices on 15 to 20 ton capacity locomotive crane, 8 wheel, 40 to 50 ft. boom.

**Crane (Locomotive).**—R. E. Boggs (Mchy. Dealer), 1315 Jefferson County Bank Bldg., Birmingham, Ala.—Dealers' prices on 25-ton locomotive crane without bucket, also 20-ton locomotive crane without bucket, southern delivery preferred.

**Creamery.**—H. C. Schultz, Mobile, Ala.—Data and prices on equipment for creamery plant.

**Crockery, Enamel Ware, etc.**—Marine Corp. Quartermaster's Dept., Washington, D. C.—Bids until March 23 to furnish 600 enamel soup bowls, 2000 enamel coffee cups, 800 water pitchers, 5 qts.; 1000 dinner plates, 1000 soup tureens, 16,000 china coffee cups, 4000 china vegetable dishes, 10,000 dinner plates, 1000 meat plates, 10,000 china soup plates, 12,000 saucers, 16,000 cups, 600 bread knives, 300 carving knives, 600 meat knives, 200 soup ladles, 300 dishpans, 500 frying pans, 1000 roasting pans, 300 syrup pitchers, 1000 salt cellars, 200 flour sifters, 100 skimmers, 200 basting spoons, 6000 teaspoons, 3000 tumblers, etc.; delivery Depot Quartermaster, U. S. M. C., Marine Corp Storehouse, foot of Snyder Ave., Phila., Pa., Sch. 354.

**Culvert Construction.**—Edgar Read, City Clk., Charlotte, N. C.—Bids opened March 15 to construct culverts on various streets; plans, etc., from City Engr.

**Cupola.**—A. C. Smith, Mgr., American Iron Works, Box 138, Kernersville, N. C.—Prices on 2-ton capacity cupola foundry furnace complete, with crane.

**Curtain (Stage).**—Mrs. M. R. Anderson, Lake Wales, Fla.—To purchase stage curtain for high school auditorium, opening 19 ft. wide, 16 ft. high.

**Derrick (Guy).**—Coggins Marble Co., Canton, Ga.—Prices on one 30 ton Guy derrick 100 to 115 ft. mast, 90 to 100 ft. boom, bull wheel; used machinery, subject to inspection; immediate delivery; one 30 ton stiff leg, 10 to 15 ft. lift.

**Drain Construction.**—Director of Public Works, Walter H. Taylor, 3rd., Norfolk, Va.—Bids opened March 14 to furnish material, labor and appliances in construction of reinforced concrete drain in Graydon Park, westward from Brandon Ave.; Norman Z. Ball, Asst. Engr.

**Dredging.**—U. S. Engr. Office, Jacksonville, Fla.—Bids until April 3 for dredging and rock removal in Tampa Harbor, Fla.

**Drugs.**—Herbolac Co., Barboursville, Ky.—To correspond with mfrs. of or dealers in castor oil, turpentine, extracts, spices; to purchase general drug line in bulk shipment.

**Dry Kiln.**—Moore & Rachels Lumber Co., Culverton, Ga.—To purchase dry kiln.

**Electric Equipment.**—R. L. Beasley, Gordon, Ala.—To purchase five mi. copper wire; switch board for 350 H. P., globes, etc.; delivery Gordon.

**Electric Fixtures.**—Board of Award, Rich. Gwinn, Register, City Hall, Baltimore, Md.—Bids until March 21 for electric fixtures for Bay View Asylum; J. F. Crowther, Inspector of Buildings.

**Electric Generator Set.**—W. H. Clark, Stuart, Va.—To purchase at once, 75 to 80 K. W. A. C. generator outfit, including exciter, switchboard and all necessary equipment for complete outfit, except power for 60 cycle, 2300 volt; prefer generator water wheel type, but will consider a belted.

**Elevator and Conveying Machinery.**—

Coco Cola Bottling Co., Pine Bluff, Ark.—Data and prices on elevator and conveying mchy. including power conveyor for elevating bottle cases weighing about 70 lbs., 20 ft. electric elevator, 2000 lbs. capacity, lift 35 ft., also gravity conveyor.

**Engine.**—Monroe Sand & Gravel Co., Monroe, La.—To purchase 16x16 high speed engine to be used on a washing plant; second-hand if in good condition.

**Engine.**—Interstate Veneer Co., Inc., North Emporia, Va.—To purchase one 100 H. P. slide valve steam engine.

**Engine.**—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers' prices on 400 H. P. left-hand Corliss engine to operate 125 RPM., 140 lbs. steam pressure.

**Engine (Hoisting).**—Hackley Morrison Co., Inc. (Mchy. Dealers), 1708 Lewis St., Richmond, Va.—To purchase 7x10 double cylinder, double friction drum hoisting engine, without boiler.

**Engines.**—R. L. Beasley, Gordon, Ala.—To contract for mfr. of automatic spring engines, manufactured from any model.

**Flooring, etc.**—Walter Clark, Contr., Wilmington, N. C.—Prices on 50,000 ft. B. & B. flooring; 25,000 ft. B. & B. ceiling; 50,000 ft. No. 2 rift pine flooring; and 40,000 ft. black gum flooring; all flooring 13/16-in. and ceiling 11/16-in. thick.

**Gravel.**—Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La.—Bids until March 27 for 4126 cu. yds. washed and screened gravel, and 8245 cu. yds. sand-clay gravel, containing not less than 40 per cent stone; J. M. Fourmy, State Highway Engr.

**Hangers (Coats).**—Holman & Holman, Columbia, S. C.—To correspond with mfrs. of wire goods including coat hangers.

**Heating Mains.**—State Board of Control, Southwestern Insane Asylum, San Antonio, Tex.—Bids until Mch. 24 for heating mains; J. P. Greenwood, Conslt. Engr.

**Hoist (Double Drum).**—Coggins Marble Co., Canton, Ga.—Prices on one steel double drum hoist with swinging attachment; used mchy., subject to inspection; immediate delivery.

**Ice Cream Supplies.**—Carolina Ice Cream Co., Fayetteville, N. C.—Lowest prices on ice cream supplies, including paper dishes, ice cream pails and wooden spoons.

**Knitting Mill Supplies.**—T. H. Stokes, Murray, Ky.—Knitting mill supplies to establish new knitting mill.

**Incinerator.**—City Comsn., Tampa, Fla.—Bids until Mch. 27 for material and construction of 50-ton daily capacity incinerator plant; B. A. Redding, City Purchasing Agt.

**Lathe (Engine).**—See Repair Shop Equipment.

**Lathe (Engine).**—Wilson-Hock Co., (Mchy. Dealers), City Point, Va.—Dealers' prices on 16-in. swing, 12 ft. bed or approx.; used equipment desired.

**Light and Water Plant Equipment.**—City of Jasper, Ind.—G. P. Wagner, Mayor, bids until Mch. 21 for following equipment: 300 H. P. water tube boiler; 500 K. W. turbo-generator set; 500 K. V. A. engine driven generator set; two centrifugal pumps and motors to handle 800 G. P. M. 26 ft. head; one 125 x 5-ft. radial brick stack; steam-piping and addition to present building; James R. Lowe, Conslt. Engr., 111 N. 3rd St., Louisville, Ky.; specifications with City Clk., Jasper.

**Lighting Fixtures, etc.**—C. H. Lindsay, Archt., 50 Kress Bldg., Jackson, Miss.—Bids

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

until April 2 for furniture, screens, and lighting fixtures for courthouse Rosedale, Miss.

**Locomotive.**—Osceola Cypress Co., Osceola, Fla.—35 to 40-ton rod locomotive, standard gauge, subject to Hunt & Co., inspection.

**Locomotive.**—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers' prices on 40-ton standard gauge locomotive.

**Magnet (Lifting).**—Industrial Power Equipment Co., 10 E. Fayette St., Baltimore, Md.—One 42-in., 220-volt lifting magnet, Cutter-Hammer preferred; good condition.

**Mechanical Equipment.**—A. R. McEarchern, Chmn., St. Paul's School Trustees, St. Pauls, N. C.—Bids until Mch. 29 to install mechanical equipment in high school, consisting of steam heating plant, plumbing and electrical work; W. D. Harper, Archt., Florence, S. C.

**Millwork.**—John H. Taylor, Ocala, Fla.—Catalogues and prices on millwork for residence.

**Mining Equipment.**—Dempster Equipment Co., Buying Agts for Dempster Construction Co., Madisonville, Ky.—Prices on new and second-hand 36-in. gauge steel beam and 4 and 5-yd. 2-way dump cars; tippie machinery capable of handling 2000 tons per day; 50,000 to 75,000 gal. capacity wood water tanks; 2 mi. of 4-in. black pipe; 1 mi. 56 or 60 lbs. relay rails with plates and switches; 3½ yd. and 6-yd. Marion and Bucyrus steam shovels, full revolting 36-in. gauge dinky saddle tank.

**Miscellaneous Supplies.**—Panama Canal, A. L. Flint, General Purchasing Agt., Washington, D. C.—Bids until Mch. 28 to furnish: Automatic refrigerating plant; Parson's brass, steel and manila rope; portable hand drills; valves; lubricating oils; brass tubing; window glass; paints; varnishes; paint, varnish and enamel remover; white lead and zinc; tackle blocks; scoop shovels; life rafts, motorcycle tires; ready roofing canvas; reed baskets; emery cloth; paper towels, etc. Blank forms and information (Circular 1518) on application to offices of Panama Canal, Asst. Purchasing Agents at New York, New Orleans, La.; Fort Mason, San Francisco, Cal.; also U. S. Engr. Offices throughout the country.

**Miscellaneous Supplies.**—District Comms., Room 509, District Bldg., Washington, D. C.—Bids until April 2 to furnish and deliver stationary, school books, furniture and house furnishing, hardware, rubber stamps, plumbing materials, paints and brushes, electric supplies, kindergarten supplies, oil and lubricants; for District of Columbia during year ending June 30, 1924.

**Motors.**—R. L. Beasley, Gordon, Ala.—To purchase one 350, 150 and 100 H. P. new or second hand motors.

**Oil Plant Equipment.**—Gillespie Oil Corp., P. E. Flemister, Gallatin, Tenn.—Bids until May 1 for machinery for 200-bbl. daily capacity plant, less storage and pipe.

**Paving.**—City Comsn., Chas. H. Brown, Mayor-Commr., Tampa, Fla.—Bids until Mch. 20 to pave and curb 13th St. from Elliott St. to Ellamae Ave.; 16,800 sq. yds. asphalt block pavement; 6000 lin. ft. granite curbing; 5000 lin. ft. sub-drains; plans, etc. from City Engr.

**Paving.**—R. H. Garrett, Mayor, Dunbar, W. Va.—Bids until March 16 to grade, curb, pave, etc., 27,000 sq. yds. streets; plans, etc. on file.

**Paving.**—P. C. Painter, City Mgr., Greensboro, N. C.—Bids until March 19 to pave 150,000 sq. yds. streets, etc.; cement concrete, sheet asphalt or bituminous concrete; plans, etc., from Geo. E. Finck, Highway Engr.

**Paving and Sewer Construction.**—Harry Carroll, Clk., Ashland, Ky.—Bids until Mch. 19 to pave certain streets; 19,977 sq. yds. bituminous or concrete; 8433 sq. yds. brick; 27,336 lin. ft. curb and gutter; also improve sewer system; 1384 lin. ft. 12-in. sewer pipe; construct 40 inlets, plans, etc., from Thomas Boggess, City Engr., or F. W. Gosling, Gaylord Bldg.

**Paving and Sewer Construction.**—J. E. Lytch, Mayor, Rowland, N. C.—Bids until Apr. 3 for 5383 sq. yds. street pavement; 1515 lin. ft. curbing; 9339 sq. yds. sidewalk pavement, storm sewer, catch basins, manholes, etc.; plans, etc., from O. P. Chitty, Clk. and Treas., and Ryan Engineering Co., Engr., Arcade Bldg., Columbia, S. C.

**Pig Iron.**—A. C. Smith, Mgr., American Iron Works, Box 138, Kernersville, N. C.—Prices on pig iron in car lots.

**Pipe (Cast Iron).**—Board of Awards, Richard Gwinn, Register, City Hall, Baltimore, Md.—Bids until March 21 to furnish and deliver cast iron pipe and fittings to water department; Wm. A. Megraw, Room 205, City Hall, Water Engr.

**Pipe (Iron).**—Texas Supply Co. (Mchy. Dealers), Box 1777, Houston, Tex.—To purchase 500,000 ft. of 2-4-6-8-10 and 12-in. iron pipe.

**Pipe Threading Machine.**—4109 First Ave., Baltimore, Md.—One second-hand Landis pipe threading machine, for threading pipe 2½ to 4-in.

**Planing Mill Buggies.**—Townsend Sash, Door & Lumber Co., J. F. Townsend, Prest., Lake Wales, Fla.—To purchase planing mill buggies and factory trucks; second-hand equipment.

**Pleating Machine, etc.**—Wiggins Brothers, Monroeville, Ala.—To purchase pleating machine or pleating irons, also fluting irons.

**Portable Houses.**—Dempster Equipment Co., Buying Agts. for Dempster Construction Co., Madisonville, Ky.—Prices on four-room portable houses (temporary).

**Printing Equipment.**—Florence Printing Co., 32 E. Evans St., Florence, S. C.—To purchase base material for mounting electros on plates, solid page bases.

**Pulleys.**—See Shafting, etc.

**Pulleys.**—See Repair Shop Equipment.

**Rails (Relay).**—See Mining Equipment.

**Rails (Relaying).**—Cheatwood & Driscoll Co., Reidsville, N. C.—To purchase 1 or 2 mi. of 20-lb. relaying rails.

**Reinforcing Material.**—Cherry Construction Co., Room 14, Haskell Bldg., Ashland, Ky.—Prices on reinforcing material for road and street construction.

**Rails (Relay).**—Coggins Marble Co., Canton, Ga.—Prices on 400 to 500 tons of 60 lbs. relay rails, splicers, and angle bars, used mchy., subject to inspection immediate delivery.

**Repair Shop Equipment.**—Greensboro Repair Shop, Box 1063, Greensboro, N. C.—Prices on following second-hand mchy., 20-in. engine lathe with 8 ft. bed; No. 2 milling machine with dividing head; power hack saw; key seater ¼ to ½-in. and one emery stand; clutch pulleys and countershafts attached to each machine.

**Roadway and Bridge Construction.**—City, F. V. DeGruy, Secy., Madisonville, La.—Bids until April 2 to grade, shell and build 2 bridges on 1½ mi. road from Madisonville to point near lighthouse; plans, etc., on file.

**Road Construction.**—Cherokee County Highway Comsn., Gaffney, S. C.—Bids until March 16 to grade, construct drainage structures, and pave 1.782 mi. State Route No. 8, through Blacksburg; plain, sheet asphalt,

or asphaltic concrete; F. A. Proj. No. 198; plans, etc., from State Highway Engr., Columbia, S. C.

**Road Construction.**—Ohio County Comms., H. C. Underwood, Clk., Wheeling, W. Va.—Bids until March 17 to grade 6150 ft. Greggsville, Clinton and Potomac road, from Pogue's Run road to top of Dean's Hill; plans, etc., from A. C. Hoffman, County Road Engr.

**Road Construction.**—City, Board of Awards, Wm. F. Broening, Pres., Baltimore, Md.—Bids until March 21 to build Phoenix Road, Cont. No. 64, Water Dept.; 10,040 cu. yds. earth excavation and embankment; 5200 sq. yds. concrete roadway; Wm. A. Megraw, Water Engr.; G. H. Leaverton, Plant Engr.

**Road Construction.**—Roland Park Land Co., 1427 4th Ave., Huntington, W. Va.—Bids until March 15 to grade, drain and hard surface 3200 lin. ft. road in Roland Park; 6400 sq. yds. one course plain concrete pavement; plans, etc., from Jos. N. Doyle, Engr., 320½ 5th St., Huntington.

**Road Construction.**—Tarrant County Comms. Court, W. E. Yancy, County Auditor, Fort Worth, Tex.—Bids until March 15 to grade, construct drainage structures, and gravel surface 2.82 mi. Azle-Springtown road, from Azle north to Parker County line; plans, etc., on file.

**Road Construction.**—Caddo Parish Police Jury, Shreveport, La.—Bids until April 9 for 5 mi. 18-ft. concrete road; plans, etc., from J. T. Bullen, Engr.

**Road Construction.**—Cherokee County Highway Comsn., W. E. Peeler, Commr., Gaffney, S. C.—Bids until March 16 to grade, construct drainage structures, and pave with concrete, 1½ mi. National Highway through Blacksburg; \$60,000. (Lately noted.)

**Road Construction.**—Red River County Comms. Court, Geo. Morrison, County Judge, Clarksville, Tex.—Bids until March 16 for 7.59 mi. S. H. No. 5 in Detroit Road Dist.; 43,126 cu. yds. roadway, 11,579 cu. yds. gravel; J. B. Rieman, County Engr. (Lately noted.)

**Road Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until March 24 to grade, construct drainage structures, etc. on 5 road projects in Green County, as follows: .636 mi. on road from Galloway, southward, State Proj., Route 3, Sec. 97; 3.55 mi. road from Springfield, westward, State Proj., Route 14, Sec. 11; 1.39 mi. road from Springfield, southward, State Proj., Route 3, Sec. 94; 4.100 mi. road from Springfield, westward, State Proj., Route 14, Sec. 14, Sec. 12; 2.954 mi. road from Springfield, westward, State Proj., Route 14, Sec. 13; H. P. Mobberly, Div. Engr., Woodruff Bldg., Springfield.

**Road Construction.**—Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La.—Bids until March 27 to grade, drain and gravel surface 6.58 mi. St. Francisville-Baton Rouge highway, from St. Francisville south to Thompson Creek Bridge; West Feliciana Parish, F. A. Proj. 129; plans, etc., on file; J. M. Fourmy, State Highway Engr.

**Road Paving.**—Little Rock-Hot Springs Highway Comms., E. O. Bagley, Secy., Little Rock, Ark.—Bids opened March 12 to pave 7 sections, totaling 42 mi., Little Rock-Hot Springs Highway, from city limits of Hot Springs to Saline-Pulaski County line; concrete; plans, etc. from State Highway Dept., and County Clerks of Garland, Saline and Pulaski Counties; Alfred M. Lund, Engr., 527 Southern Trust Bldg.

**Rock Protection.**—Supt of Light Houses, New Orleans, La.—Bids opened March 14 to furnish and place approx. 1800 tons rock



protection around Sand Island Light Station, Ala.

**Rope (Manilla).**—Mississippi River Comsn., 1st and 2nd Dists., Customhouse, Memphis, Tenn.—Bids until April 3 to furnish and deliver approx. 103,000 lbs. manilla rope.

**Reservoir (Storage).**—City of Winchester, Va., L. R. Dettra, City Mgr.—Bids until March 20 to furnish material and build concrete water storage reservoir for Winchester water system; Norton, Bird & Whitman, Consult. Engrs., Munsey Bldg., Baltimore.

**Sanitary Sewers.**—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md., receives bids until March 21 for construction of sanitary sewers in Districts No. 49-A and 49-B, sanitary contract No. 198 comprising approx.: 390 lin. ft. of 12 in., 183 lin. ft. of 10 in. and 15,706 lin. ft. of 8-in. vitrified pipe sewer, 6223 lin. ft. house connections, 72 manholes, and other miscellaneous work incidental to the above; specifications and plans from office of Chas. T. Goob, Highways Engr., City Hall.

**Sausage Machinery.**—E. P. Allen & Co., Inc., 2315 1st Ave., Birmingham, Ala.—Bids opened in 60 or 90 days for sausage machinery.

**Scales (Truck).**—G. L. Burnett & Co., 414 Peoples Bank Bldg., Lynchburg, Va.—New or used truck scales, 10-ton capacity.

**School Equipment.**—Mrs. Ida M. Neff, Prest., School Board, Orange, Texas—Bids until March 16 for equipment for the Anderson School Building C. H. Page & Bro., Archt., Austin, Texas.

**Shafting, etc.**—Interstate Veneer Co., Inc., North Emporia, Va.—To purchase shafting, pulleys, belting, etc.

**Sheet Metal Shop Equipment.**—A. C. Smith, Mgr., American Iron Works, Box 138, Kernersville, N. C.—Prices on tools for sheet metal shop; 2½-in. and 10 and 12-in. sheet metal pipes or flues; also heavy sheet metal as comes for furnaces.

**Shovel (Steam).**—Coggins Marble Co., Canton, Ga.—Prices on one steam shovel, ½ to 1 yd. capacity; used equipment; subject to inspection; immediate delivery.

**Shovels (Steam).**—Monroe County Comms., D. J. Filer, Clk., Key West, Fla.—Bids until April 5 to purchase 1 yd. steam shovel; also ¾ yd. steam shovel with 30 H. P., A. S. M. E. boiler, duplex engine, multipedals traction, 21 ft. boom reach, drums to be furnished for dipper, drag line, clam shell or skimmer, machine to be of interchangeable type, but only one type will be ordered with full equipment; state prices for oil or wood burning equipment; give illustrations and full description; delivery Miami, Fla.

**Shovels (Steam).**—R. E. Boggs (Mchy. Dealers), 1315 Jefferson County Bank Bldg., Birmingham, Ala.—Dealers' prices on Model 300 Marion coal stripping steam shovel.

**Shovels (Steam).**—See Mining Equipment.

**Sidewalks.**—C. H. Lindsay, Archt., 50 Kress Bldg., Jackson, Miss.—Bids until April 2 for sidewalks for courthouse at Rosedale, Miss.

**Spoons (Wooden).**—Carolina Ice Cream Co., Fayetteville, N. C.—To correspond with mfrs. of wooden spoons, paper dishes and paper ice cream pails.

**Steel Building.**—Florida Machine Works, Jacksonville, Fla.—Steel building suitable for machine shop, about 60x130x20-ft. high (curb to eave); state price, description and location.

**Steel Forms (Culvert, Curb and Gutter).**—Cherry Construction Co., Room 14, Haskell Bldg., Ashland, Ky.—Prices on steel forms for culverts, curb and gutter.

**Steel Framing.**—Port Commrs., J. H. Walsh, Gen. Mgr., Suite 200 New Court Bldg., New Orleans, La.—Bids until March 22 to furnish, erect and paint, steel framing required for wharf structure at Poland St. Landing; plans with Supervisor of Purchases, 1 Canal St.

**Street Paving Material.**—Virginia State Highway Comsn., 413 N. Tenth St., Richmond, Va.—Bids until March 21 for following material and work; approx. 1,402,509 gals. bituminous surface treatment; application of 1,402,509 gals. of bituminous surface treatment in six groups; about 544,000 gals. expected to be used on state aid work; A. H. Pettigrew, Asst. Engr., State Aid.

**Structural Materials.**—U. S. Engr. Office, Box 421, Vicksburg, Miss.—Bids until April 7 to furnish and deliver about 467,000 lbs. of structural metal for 1 locks and dams Nos. 5 and 8, Quachita river, La. and Ark.; also to erect 4 steel gates at No. 5 and modifying 2 steel locks gates at No. 8.

**Tank (Storage).**—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers' prices on 12,000 or 15,000 gal. fuel oil storage tank.

**Tanks (Wood, Water).**—See Mining Equipment.

**Tarvia.**—Duval County Comms., R. H. Carswell, Chmn., Jacksonville, Fla.—Bids until March 20 to furnish one or more cars of tarvia X in bbls; delivery f. o. b. at Three Mile Spur, S. A. L. Shops, Jacksonville.

**Textile Mill Machinery.**—H. C. Beasley, Reidsville, Ga.—To correspond with mfrs. of knitting mill mchy., also machines for making automobile tire fabrics.

**Tile.**—John H. Taylor, Ocala, Fla.—Catalogues and prices on tile for residences.

**Tile.**—Cherry Construction Co., Room 14, Haskell Bldg., Ashland, Ky.—Prices on tile.

**Typesetting Machine.**—Glades County Democrat, Moore Haven, Fla.—To correspond with mfrs. of typesetting machine.

**Veneer.**—Bensussan & Sides, Salonica, Greece—Prices on veneer; delivery C. I. F. Salonica; state time of delivery, also price must include 5% commission.

**Water Works and Sewerage Improvements.**—City of Fayetteville, N. C., Public Works Comsn.—Bids until April 5 for following improvements to waterworks and sewerage system: For furnishing and laying approx. 16,000 tons cast iron water pipe and special castings; 6 to 12-in. inclusive, furnishing valves and hydrants; construction of 300,000 gal. elevated tank, etc.; 87,000 ft. of 8 to 18-in. vitrified pipe sewer; 293 man holes; 20 flush tanks; equipment of present filters with new manifold and strainer systems, rate controllers, loss of head and rate of flow gauges; to furnish and install chlorinator, motor driven centrifugal pump, Venturi meter, etc.; and various concrete structures; Wm. C. Olsen, Consult. Engr., Kingston, N. C.

**Water Works System, etc.**—J. W. Stokes, Mayor, Town of Elton, La.—Bids opened March 14 to furnish machinery and construct complete municipal water works system and raw water ice-making plant; Henry Mentz, Consult. Engr., Magnolia, Miss.

**Windmill and Tower.**—Thos. M. Ferguson, Hattiesburg, Miss.—Prices and catalogs of windmill and attachments for grinding corn or running other mchy.

**Wire, etc.**—Mississippi River Comsn., First and Second Dists., Custom House, Memphis, Tenn.—Bids until March 26 to furnish and deliver 870,000 lbs. of galvanized wire, wire strand, and staples, also 24,000 wire rope clips.

**Wire Fasteners, etc.**—Transfer Lumber &

Shingle Co., Inc., North Tonawanda, N. Y.—To purchase 10,000 special wire fasteners, about 1½-in. long, together with metal washers.

**Woodworking Machines.**—H. S. Storr Co., 116 W. Martin St., Raleigh, N. C.—Prices on woodworking machines for cabinet work.

## Financial News

### New Financial Corporations.

Ark., Springdale—First State Bank, organized with Tom Hargis, Prest., Huntsville.

Fla., Jacksonville—Peninsular Guarantee Co., capital \$100,000, incptd. with H. H. Elarbee, Prest.; Marcus Conant, Vice-Prest.

Fla., Vero—Vero Bank and Trust Co., capital \$50,000, incptd. O. O. Heleth, Prest.; D. C. Cox, Vice-Prest.

Ky., Madisonville—Madisonville Building & Loan Assn., capital \$1,000,000, incptd. by S. R. Parker, L. E. Ruby and Harper Gatton.

La., Monroe—Cobb-Jackson Insurance Co., capital \$50,000, incptd. with J. M. Cobb, Prest.; B. M. Jackson, Vice-Prest.

Md., Baltimore—Modern Building and Loan Assn., 312 Equitable Bldg., capital \$500,000, incptd. by Chas. Newman, Harry F. Lazarus and Lawrence Peyser.

Md., Baltimore—Universal Finance Co., 1123 West Baltimore St., capital \$100,000, incptd. by Wm. J. Ayares, Hyman Rubin and Richard B. Ayares.

Md., Baltimore—Veterans' Building and Loan Assn., 302 Morris Bldg., capital \$10,000, incptd. by Wm. G. Brohawn, Herman Goldstein and Louis McKim Kines.

Md., Baltimore—Inter-Urban Building and Loan Assn., 820 Fidelity Bldg., capital \$1,040,000, incptd. by Charles Edgar Wood, Walter A. McLean and Robert N. Baer.

Md., Baltimore—The Brotherly Aid Loan and Building Assn., 25 North Eden St., capital \$500,000, incptd. by Robert Becker, Herman Goldstein and Louis McKim Kines.

Md., Baltimore—The Cottage Building and Loan Assn., capital \$500,000, incptd. by Alfred S. Hankin, Nathan Silberman and others.

Mo., Clayton—The First National Bank, capital \$100,000, succeeds the Trust Co., of St. Louis County.

Mo., Clinton—Clinton Farm Loan and Title Co., capital \$50,000, incptd. by V. J. Day, J. B. Redford, W. J. Livingston, W. L. Gurner, S. A. Barnett and others.

Mo., Kansas City—Owners Finance Co., capital \$35,000, incptd. by J. S. Butler, H. B. Wilber, W. R. Butler, D. W. Bidwell and others.

Mo., Kansas City—Prudential Building and Loan Assn., capital \$50,000, incptd., by A. A. Francis, Lenora Francis, W. H. Crowder, J. R. Bremmer and others.

Mo., St. Joseph—Union Bond and Mortgage Co., capital \$10,000, incptd. by R. L. Douglas, Lawrence Lucas, L. C. Sutherland.

Mo., St. Louis—Commonwealth Investment Co., incptd. by W. K. Heikes, A. W. Sae-gesser, A. S. Magann.

Mo., St. Louis—John Nickerson & Co., capital \$100,000 incptd. by J. A. Kerwin, Jr., J. H. Fotheringham, and others.

Mo., Springfield—Great Southern Savings and Loan Assn., capital \$500,000, incptd.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

by J. H. Hogg, R. M. Mack, J. P. McNiel, and others.

Okla., Maud—Maud National Bank, capital \$25,000, succeeds the Maud State Bank, Bert Harris, correspondent.

Okla., Tonkawa—The American National Bank, capital \$25,000, succeeds the American State Bank, Ray See, correspondent.

S. C., Anderson—Horton-Cromer & Co., inceptd. with Louis S. Horton, Prest.; Ben A. Cromer, Vice Prest.

S. C., Honea Path—National Bank of Honea Path, capital \$100,000, inceptd. J. G. Gambrell, correspondent, Ware Shoals.

Tenn., Chattanooga—Hamilton Finance Co., capital \$10,000, inceptd. by J. Hamilton Love, Edna Johnson, C. A. Posey, and others.

Tenn., Chattanooga—Hamilton Finance Corporation, inceptd. b. J. Hamilton Love, Edna Johnston, Charles N. Shaw and others.

Tenn., Kingston Springs—Harpeth Valley Bank, capital \$14,450 inceptd. by A. E. Beard, R. E. Harris, Leo Liles, W. C. West and others.

Tenn., Memphis—Parkview Investment Co., capital \$100,000, inceptd. by Geo. D. Barnett, Jr., John I. Haynes, E. Laser, H. Brussel, and others.

Tex., Houston—Central State Bank, inceptd. with S. D. Simpson, Prest.

Va., Norfolk—Norfolk Insurance Agency, capital \$10,000, inceptd. with O. M. Creekmore, Prest.; Portsmouth; R. W. Coates, Secy., Norfolk.

Va., Pulaski—Pulaski Finance Corp., capital \$100,000, inceptd. with F. J. Laughon, Prest.; J. Gary Laughon, Jr. and others.

Va., Richmond—Federal Corp., capital \$100,000, inceptd. with Charles T. Norman, Prest.

W. Va., Huntington—Cabell Investment Co., capital \$50,000, inceptd. with C. A. Staats, Prest.; C. W. Strickling, Vice-Prest. (Lately noted.)

### New Securities.

Ala., Eutaw—Water and Light—Town sold \$45,000 bonds to Ward, Steiner & Co., of Birmingham. Address The Mayor.

Ala., Fort Payne—Roads and Bridges—DeKalb County will vote Mar. 20 on \$275,000 bonds. Address County Commrs.

Ala., Mobile—School and Refunding—Mobile County sold \$430,000 bonds to Peoples' Bank of Mobile. Address County Commrs.

Ala., Samson—Indebtedness—Geneva County will vote March 29 on \$100,000, 5% bonds. Address County Commrs.

Ala., Tusculumbia—School, Street and Refund—City voted \$200,000 bonds. Address The Mayor. (Lately noted.)

Ark., Mina—Sewer—City plans issuing \$40,000 bonds. Address Mayor Jones.

Ark., Murfreesboro—Refunding—Pike County sold \$29,000 bonds to J. L. Arlitt, of Austin.

Ark., Pine Bluff—Paving—Merchants and Planters' Bank purchased \$30,000 bonds of Walnut Street Paving Dist. No. 48. Address The Mayor.

Fla., Coconut Grove—Street, Sewer, Land, Building—Albert L. Isaac, Town Clk., will vote March 27 on \$200,000 bonds, including \$100,000 for street improvement, \$5,000 for septic tank etc., \$70,000 for land, and \$25,000 for building. (Lately noted.)

Fla., Dade City—Water and Sewer—City voted \$18,000 bonds. Address The Mayor. (Lately noted.)

Fla., Gainesville—Sewer, Water and Light.

—City will vote on \$300,000 bonds. Address The Mayor.

Fla., Inverness—Road—Citrus County voted \$750,000 bonds. Address County Commissioners. (Lately noted.)

Fla., Palatka—Bridge—Putnam County Commrs. contemplate voting on \$375,000 bonds.

Fla., Palatka—Road—Putnam County will vote May 1 on \$700,000, 5½%, \$1000 denom. bonds. Address County Commrs. (Lately noted.)

Fla., South Jacksonville—Transportation—South Jacksonville will vote April 10 on bonds. Address The Mayor.

Fla., St. Petersburg—Road—Pinellas County will vote May 2 on \$3,275,000 bonds; G. E. Burleson, County Engr.

Fla., St. Petersburg—Municipal—City, H. T. Davis, Director of Finance sold \$1,037,000, 5¼% bonds to Caldwell and Co. of Nashville, Tenn., and R. M. Grant & Co., of New York.

Fla., Tallahassee—Sewer, etc.—City sold \$145,000, 5% bonds to Atlantic National Bank of Jacksonville, Fla., at par and accrued interest. Address The Mayor. (Lately noted.)

Fla., Tavares—Court House—Lake County sold \$250,000 bonds to Sutherland Barry & Co., New Orleans, La. Address County Commrs.

Fla., West Palm Beach—Inlet—Lake Worth Inlet Dist., sold \$275,000, 6%, \$1000 denom. bonds to Farmers Bank & Trust Co. of West Palm Beach. Address C. H. Ellis, Secy & Treas. (Lately noted.)

Fla., West Tampa—Municipal—City sold \$65,000 bonds to Bolger, Mosser & Willaman, of Chicago. Address The Mayor. (Lately noted.)

Fla., Winter Garden—Sewer and Water—City voted \$40,000 bonds. Address The Mayor.

Ky., Hartford—Road—Ohio County voted \$300,000 bonds. Address County Commrs.

Ky., Lancaster—Road—Garrard County, G. M. Treadway, County Judge, will receive bids until March 21 for \$70,000, 5% bonds. (Lately noted.)

Ky., Lancaster—Road—Garrard County, G. M. Treadway, County Judge, voted \$70,000, 5% bonds.

La., Delhi—Sewer—City will receive bids until Mar. 27 for \$40,000, 6% bonds. Address The Mayor. (Lately noted.)

La., Donaldville—Street—Donaldville, Ascension Parish, sold \$45,000 bonds to Canal-Commercial Trust & Savings Bank of New Orleans. Address Parish Police Jury. (Lately noted.)

La., Gretna—Jail—Jefferson Parish Police Jury will receive bids until April 4 for \$70,000, 6%, \$1000 denom. bonds. (Lately noted.)

La., Gretna—School—Jefferson Parish School Dist. No. 1, sold \$400,00, 5%, \$1000 denom. bonds to Hibernia Securities Co., and Harris, Forbes & Co. both of New Orleans. Address Parish Police Jury.

La., Jennings—Road—Jefferson Davis Parish La. Clare Road Dist. No. 1 sold \$22,000, 6% bonds at par. (Lately noted.)

La., Madisonville—Improvement—Town, Frank V. DeGuy, Secy., will receive bids until April 2 for \$25,000, 5½% bonds.

La., New Orleans—Paving—R. M. Murph, Commr. of Public Finances, will receive bids until March 26 for \$1,050,000 bonds.

Md., Cambridge—Road—Dorchester County sold \$30,000, 4½%, \$500 denom. bonds to Strother, Brogden & Co., Mackubin, Goodrich & Co. and the Continental Co., all of Baltimore, Md. Address County Commrs. (Lately noted.)

La., Rayne—Water and Light—City sold \$90,000, 6% bonds to Caldwell & Co., of Nashville, Tenn. Address Acadia Parish Police Jury.

Miss., Belzoni—Road—Humphreys County Commrs. sold \$175,000 bonds to the Citizens Bank & Trust Co. of Belzoni. Address County Commrs.

Miss., Biloxi—Street, School Parks, Library, etc.—City, M. L. Mitchell, City Clk., will receive bids until Mar. 15 for \$550,000, 5¼% bonds. (Lately noted.)

Miss., Vicksburg—Sea-Wall—City will vote April 24 on \$125,000 bonds. Address J. J. Hayes, Mayor.

Mo., Bevier—School—Bevier Special School Dist. will vote April 3 on \$20,000 bonds. Address Bd. of Trustees.

Mo., Caruthersville—Court House—Pemiscot County Commrs. will receive bids until April 2 for \$150,000, 5% bonds. Address County Commrs.

Mo., Chillicothe—School—Chillicothe will vote March 16 on \$300,000 bonds. Address School Bd. of Education.

Mo., Kansas City—School—Kansas City School Dist. sold \$1,000,000, 4½% bonds to Harris Trust & Savings Bank of Chicago, and Stern Bros., of Kansas City. Address Dist. Trustees.

Mo., Kirksville—Water Works—City will vote again, April 17 on \$260,000, bonds voted Feb. 24. Address E. L. Barnes, City Clk. (Lately noted.)

Mo., Lathrop—Water and Sewer—City will vote March 20 on \$82,000 bonds. Address The Mayor.

Mo., Neosho—Sewer—City sold \$65,000, 5% bonds to T. C. Hatler for banks in Neosho. Address The Mayor. (Supersedes previous item.)

Mo., University City—Municipal Improvements—City will vote April 3 on \$470,000 bonds. Address The Mayor.

Mo., Wellston—School—Wellston voted \$125,000 bonds. Address The Mayor.

N. C., Burlington—School—City sold \$150,000 bonds to the Title Guarantee and Trust Co. of Cincinnati, Ohio. Address The Mayor. (Lately noted.)

N. C., Carthage—School—City sold 5% bonds to Hanchett Bond Co., of Chicago. Address The Mayor.

N. C., Davidson—Street, Water, Light and Sewer—City will receive bids until March 21 for \$120,000 bonds. Address The Mayor.

N. C., Dobson—Road—Surry County Commrs., W. J. Byerly, Chrmn., will receive bids until April 2 for \$250,000, 5% bonds.

N. C., Fayetteville—Water and Sewer—City sold \$350,000 bonds to the National Bank of Fayetteville. Address The Mayor. (Lately noted.)

N. C., Gastonia—Road and Bridge—Gaston County, L. E. Rankin, Clk., will receive bids until Mar. 15 for \$300,000, 5%, \$1000 denom. bonds.

N. C., Goldsboro—Bridge—Wayne County G. E. Grantham, Clk. Bd. of County Commrs., will receive bids until April 2 for \$25,000, 5% bonds.

N. C., Greenville—Bridge—Greenville County Commrs., J. C. Gaskins, Clk., will receive bids until April 2 for \$100,000, 5% bonds.

N. C., Huntersville—Sidewalk—Town, K. W. Fite, Clk., will receive bids until March 21 for \$12,000 bonds.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



N. C., Leaksville—Street—Town, J. W. Noeman, Clk., will receive bids until March 23 for \$205,000 bonds.

N. C., Lexington—Indebtedness—Davidson County Commrs. will receive bids until April 2 for \$100,000 bonds. Address County Commrs.

N. C., Marion—Sewer and Water—Town, L. A. Neal, Clk., will receive bids until April 9 for \$100,000 bonds.

N. C., Sharon—School—Sharon School Dist. No. 3 will probably vote April 23 on bonds. Address Dist. Commrs.

N. C., Shelbyville—School—City, H. B. Cowan, Mayor, will receive bids until March 15 for \$20,000 bonds. (Lately noted.)

S. C., Charleston—Sewer—City, W. S. Smith, City Treas., will receive bids until April 2 for \$500,000, 4% bonds. (Lately noted.)

S. C., Greenville—Park—City will vote April 4 on \$110,000 bonds. Address The Mayor.

S. C., Greenville—Sewer—City sold \$100,000 bonds to Woodside National Bank of Greenville. Address The Mayor. (Lately noted.)

S. C., Walhalla—Road—Oconee County voted \$100,000 bonds. Address County Commrs. (Lately noted.)

S. C., Winnsboro—Street Paving—City sold \$50,000, 5½% bonds. Address The Mayor.

Tenn., Baxter—School—City will vote April 3 on \$10,000 bonds. Address The Mayor.

Tenn., Bristol—School, Channel, Bridge Approaches—City will vote April 14 on \$50,000 bonds. Address The Mayor.

Tenn., Dayton—Indebtedness—City sold \$75,500, 5½% bonds to Caldwell & Co., of Nashville. Address The Mayor. (Lately noted.)

Tenn., Jacksboro—Road—Campbell County sold \$126,000, 6% bonds to I. B. Tigrett & Co. of Jackson and Caldwell & Co. of Nashville, Tenn. Address County Commrs. (Lately noted.)

Tenn., Lewisburg—Water—City will issue \$130,000 bonds. Address The Mayor.

Tenn., Nashville—School—State Funding Bd. will receive bids until March 21 for \$250,000, 6% bonds. Address The Governor.

Tex., Beeville—Tick Eradication—Bee County sold \$30,000 bonds to Security Trust Co., of Austin, Tex. Address County Commrs.

Tex., Bowie—Water—City sold \$20,000, 5% bonds. Address The Mayor. (Lately noted.)

Tex., Brady—Road—McCulloch County Road Dist. No. 2 sold \$30,000 bond to F. B. King, of Austin. Address County Commrs.

Tex., Brownfield—School—Brownfield Independent School Dist. voted \$25,000 bonds. Address Dist. Trustees.

Tex., Clarksville—Street — City, Prentice Wilson, Mayor, will vote March 26 on \$22,000 bonds.

Tex., Conroe—Road—Montgomery County, W. H. Lee, County Judge, opens bids March 14 for \$120,000, 5½% bonds.

Tex., Elgin—Water—City will vote again, March 27, on \$40,000 bonds voted Nov. 28. Address The Mayor. (Lately noted.)

Tex., Fort Stockton—Water—Water Improvement Dist. No. 1, will receive bids until April 15 for \$60,000, 6%, \$1000 denom. bonds. Address Joseph Schlegel. (Lately noted.)

Tex., Galveston—Refunding—City, A. De Barbieris, City Purchasing Agent, will re-

ceive bids until March 22 for \$615,000, 5% bonds.

Tex., Galveston—School—City, Chas. W. Keenan, Mayor, will issue \$520,000 bonds.

Tex., Giddings—Waterworks and Sewerage—City will probably issue \$40,000 bonds. Address The Mayor.

Tex., Henrietta—Road—Clay County, J. F. Vaden, County Judge, will vote March 20 on \$100,000 bonds for Petrolia Road Dist., and on \$575,000 bonds for improvements on S. H. Nos. 2 and 5.

Tex., Houston—Drainage—Harris County will receive bids until March 19 for \$139,000 bonds. Address Chester H. Bryan, County Judge.

Tex., Houston—Paving, Sewer, Gravel, etc.—City will vote April 9 on \$1,250,000 bonds. Address Mayor Holcombe.

Tex., Jasper—Road—Jasper County, Eugenia Swann, Clk., opens bids March 13 for \$275,000, 5½% bonds.

Tex., Sanderson—Road—Terrell County, G. J. Henshaw, Judge, will receive bids until March 26 for \$240,000, 5½% bonds.

Va., Bristol—School—City voted \$150,000 bonds. Address The Mayor.

Va., Cape Charles—Water—City sold \$40,000 bonds to the Farmers & Merchants Trust Bank, of Cape Charles. Address The Mayor.

Va., Charlottesville—School—City will vote April 10 on \$25,000 bonds. Address The Mayor.

Va., Madison—Road—Madison County sold \$263,000, 6%, \$1000 denom. bonds to Lewis S. Rosentel Co., of Cincinnati. Address County Commrs.

Va., Onancock—Paving—Town contemplates issuing \$10,000 bonds. Address The Mayor.

W. Va., Logan—Roads—Logan County Commrs. Court will vote March 31 on \$600,000 bonds. (Lately noted.)

W. Va., Rowlesburg—Street—City sold \$40,000, 5% bonds to the State. Address The Mayor.

## Financial Notes.

Greenville Building and Loan Co., Greenville, S. C., increased capital from \$1,000,000 to \$2,000,000.

Bankers Trust and Title Insurance Co., Asheville, N. C., increased capital from \$80,000 to \$100,000.

DeSoto Investment Co., Memphis, Tenn., will increase capital from \$120,000 to \$300,000.

Fidelity Savings & Loan Co., St. Petersburg, Fla., will increase capital from \$25,000 to \$75,000.

Finance Co., of America, Baltimore, Md., contemplates increasing capital from \$500,000 to \$2,000,000.

First National Bank, Bradentown, Fla., increased capital from \$40,000 to \$120,000.

First National Bank of Clanton, Clanton, Ala., will increase capital from \$30,000 to \$50,000.

Pelican State Bank, Mansfield, La., will increase capital from \$15,000 to \$25,000.

The United Railways Savings and Loan Assn., St. Louis, Mo., increased capital from \$6,000,000 to \$7,000,000.

## Trade Literature.

### Heavy Duty Motors.

L-A motors, Type H.D., which are the heavy duty motors manufactured by the Louis Allis Company, Milwaukee, Wisconsin, are described in Bulletin 406 issued by them, the reading matter being accompanied by a number of fine illustrations showing the motors and different portions thereof. Distinguishing features of this type of motor are described thus: "1, indestructible rotor; 2, built-in over load capacity; 3, effective system of ventilation; 4, liberal shafts and bearings; 5, high starting and pull-out torques;" besides excellence in design, materials, workmanship and inspection, guaranteeing continuity of service.

### Asphalt Filler—How to Use It.

Asphalt filler for brick and vitrified block pavements is the subject of the newest addition to the comprehensive set of paving booklets prepared by the asphalt sales department of The Texas Company. The new booklet, with the aid of many illustrations, clearly and thoroughly describes each step involved in the preparation and application of asphalt filler right up to the spreading of the dressing material and the admission of traffic to the new pavement. A copy of the booklet, which is small enough to put in the pocket, may be had by asking The Texas Company, Asphalt Sales Department, 17 Battery Place, New York City.

### Relating to the Use of Asphalt.

Several publications have been issued recently by the Asphalt Association, 25 West 43rd St., New York, dealing with the use of asphalt in highway construction, and in view of the fact the Association has received many requests for information about the proper method of resurfacing old pavements with asphaltic mixtures, the Brochure No. 14 will doubtless fill a long felt want. This is a booklet entitled "Salvaging Old Pavements by Resurfacing with Asphalt." It is instructively and entertainingly written with appropriate pictures. Circular No. 13 relates to the development of the asphalt industry in the United States. The Association has prepared a list of the various brochures and circulars it has issued, any of which will be sent without charge to any one interested upon request.

### Building Roads in a Modern Way.

A new pamphlet issued by the General Motors Truck Company, Pontiac, Michigan, relates, as stated in its title, to "Money Saving Transportation for Road Construction and Maintenance." It is a handbook of sixteen pages with an attractive cover and it deals with the widely used and modern methods of hauling material in building roads; it also contains a number of tables which road contractors will find valuable when figuring on road jobs. It is observed that road jobs will be placed in larger units in the future and that only reliable contractors will be given support by bonding companies; furthermore that successful contractors must employ efficient methods and modern equipment; economical handling of the cement and the aggregate is one of their most important problems. Having made careful study of this field of work the Company are in position to extend aid and information to contractors as they have on hand valuable data from all over the United States. No charge is made for this service which is given by the Company's engineering department on request.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### General Sales Manager Appointed.

C. A. Anderson, Jr., has been appointed general sales manager of the Pittsburgh Valve, Foundry & Construction Company of Pittsburgh, Pa., succeeding James D. Robertson who resigned February 1 on account of the condition of his health. Mr. Anderson was formerly district manager of the Philadelphia office of this company.

### New York Sales Office Opened.

The Harrisburg Manufacturing & Boiler Company, of Harrisburg, Pa., recently opened a sales office in the Park Row Building, New York City. They are manufacturers of boilers, tanks, steel stacks, breechings, special steel plate and structural steel work. They also have large machine shops and make a specialty of contracting to build entire lines of machinery for companies not having their own shops.

### Enlarged Service to Clients.

Arthur D. Little, Inc., 30 Charles River Road, Cambridge 39, Massachusetts, have announced the association with them of Alfred I. Phillips, formerly associate gas engineer with the National Bureau of Standards, and lately service engineer of the American Gas Association. The Little organization is thus enabled to extend its general fuel-engineering service into the consulting gas-engineering field. Mr. Phillips having broad experience in such work.

### Branch Office Changes.

C. V. Woodward has been appointed manager of the Baltimore branch office of the Westinghouse Electric & Manufacturing Co., and F. C. Reed manager of the Huntington, W. Va., branch office. At the Philadelphia office R. J. Ross has been appointed assistant manager of the transportation division and W. F. James manager of the Industrial division, the latter succeeding R. F. Moon, who resigned to become vice president of the Atlantic Elevator Co., New York. These changes have just been announced by W. S. Rugg general sales manager.

### New Marble and Tile Company.

Organization of the American Marble & Tile Company, which will operate a large plant in Atlanta, Ga., has been announced there by B. F. Coggins, president, and G. B. Thomson, vice president and general manager. The company includes experienced men in every branch of the marble and tile industry. The plant at 28 Confederate Ave., is already in operation with the exception of gang saws, which have been purchased and will soon be installed, so that full operation will be conducted within 90 days. The company has a number of contracts ahead. W. H. Allen is secretary-treasurer and U. L. Starnes superintendent. Mr. Coggins is also president of the Coggins Marble Co., of Canton, Ga.; besides the National Marble Co., of Ball Ground, Ga.; Etowah Marble Co., and Commonwealth Granite Co., both of Atlanta and the Coggins Mercantile Co., of Canton. Mr. Thomson who was president of the G. B. Thomson Company, absorbed by the new organization, is one of the most experienced marble and tile men in the South. Capital stock is fully paid, it is stated, the amount being \$100,000.

### George A. Draper.

George A. Draper, treasurer of the Draper Corporation, manufacturers of textile machinery, Hopedale, Massachusetts, died February 7, and at a meeting of the directors on February 19, a testimonial was unanimously adopted to be entered upon the records of the corporation, while copies of it were sent to his relatives and friends. Mr. Draper became a member of the firm of George Draper & Sons in 1877 and in 1896, when the Draper Company was incorporated he was elected a member of the board and also treasurer. Later, in 1916 upon the formation of the Draper Corporation he was elected to the same positions in its organization with full responsibility for its financial affairs. One of his many gifts to charities was the creation of the Hopedale Community House and the endowment of it for the benefit of the town of which he was a native.

### Price Reduction on Portable Conveyor.

The Link-Belt Company, of Philadelphia, Chicago and Indianapolis, have announced that the price of their portable belt conveyor, the "Cub," has been reduced more than 16 per cent, the new price being \$585, complete with 2 horse power electric motor instead of \$700. The company claims that owing to the large volume of orders on hand, surpassing anything experienced in several years, this conveyor was put on a quantity production basis, resulting in a large saving in cost of manufacture, which is shown in the new low price, notwithstanding that prices generally are rising. This machine it is noted is even more sturdy than it was when it sold for more; it weighs almost twice as much as similar machines and its 18 inches wide belt is guaranteed against cutting or fraying. Running at 250 feet per minute and with uniform loading the conveyor has a capacity of 45 cubic feet per minute, loading or unloading trucks, wagons, cars, etc.

### Enlargement and Expansion of Wire Plant.

The Seneca Wire & Mfg. Co., manufacturers of the "Seneca" brands of wire, Fostoria, Ohio, have in course of erection and nearing completion an addition to their plant which will, when fully completed, more than double the present capacity. This addition is a one-story and basement building of concrete and steel construction, entirely fire-proof, and about 200 feet wide by 400 feet long, which adds approximately 80,000 square feet of floor space to the plant. Already part of the equipment for this addition has been purchased and it is expected to have operations begin in the new building within two or three months. This company specializes particularly in the production of the fine sizes of round iron and steel wire and they have been developing from a small organization thirteen years ago, with increases in plant and output every year, and the result that they now are claimed to be the largest exclusive fine wire manufacturers in the world. The company have a complete foreign organization with resident representatives in important commercial centers, excepting those of central Europe and Russia. Their foreign relationships have existed for practically ten years so that they are well established and their product is accepted as standard. In the domestic market they have resident agents or representatives in various

districts, and with a view to adding to the service, they have also established warehouses in Brooklyn, N. Y. and Atlanta, Ga., carrying material for immediate delivery. The Atlanta warehouse is operated by J. R. Regnas & Co., 10 Tift St.

### Branch Office at Laredo.

The Traylor Engineering & Mfg. Company have opened a new office in the Southwest at 1806 Farragut St., Laredo, Texas.

### Promoted to Managership.

W. H. Schutte, who has been identified for a long time with the Chicago selling force of the Blaw-Knox Company, has been promoted to the managership of its Chicago office, assuming his new duties immediately.

### Electric Equipment in Coke Plants.

Leaflet 1867 issued by the Westinghouse Electric & Manufacturing Co. describes electrical equipment for coke plant machinery. Illustrations of the uses of electricity in by-product plants are given, with recommendations as to the various types to be used.

### New Plant In Operation.

The factory which the General Electric Company has erected at Oakland, California, was put into operation on March 1 and is being used primarily for repair and service work and the assembly of switchboards. It is intended to later manufacture distribution transformers there.

### Brokerage Firm Established.

A. H. Talbot and A. M. Talbot, formerly with J. T. Gardner, Inc., now dissolved, are now in business together as brokers in railway locomotives, cars and rails under the firm name of A. H. Talbot, at 237 Railway Exchange Building, Chicago, Ill.

### Automatic Fire Extinguisher and Preventer.

A device for the automatic prevention and putting out of fires is announced by the Automatic Fire Extinguisher, Preventer and Insurance Co., Wichita, Kansas. It is claimed that this invention will prevent fires originating from static electricity among oil or gasoline tanks, etc., as well as from lightning striking them. In equipping such tanks an aerial equipment is employed to catch the "static," which thus throws a switch and sets a generator going that forces all combustible gases out of the tank. This sort of an arrangement has, it is stated, been tested in actual operation for over two years with phenomenal results, one being that the generator was set in motion 25 miles ahead of an electric storm and in two instances four hours ahead of similar storms. But there is not always enough "static" to set the machine going, so each tank is doubly equipped by having a thermostat installed beneath its cover. Then, if struck by lightning, as soon as 50 degrees heat above normal is established the generator goes into motion, forcing carbon dioxide gases into the tank and driving out the combustible gases and extinguishing the fire. The device may also be used in homes, stores, hotels, granaries, and other business places, besides on ships, etc. A thermostat is put in each room and goes off automatically when the heat rises, setting free carbon dioxide gas generated through a combination of water and chemicals this gas cutting off air supply and extinguishing the fire. The apparatus so takes advantage of the valuable time at the incipency of a fire before a fire department could possibly reach it.



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Number and Acreage of Farms by Tenure  
Number and Acreage of Farms by Race and Nativity  
Value of Farm Property by Classes  
Altitudes in the South  
Population of the South  
Native and Foreign Stock in Population  
Intermigration of Southern White Population  
Forty Years' Growth of Southern Cities  
Cotton Industry  
Manufactures 1860  
Disposition of Commercial Cotton Crop  
Pig-Iron Production  
Coke Production  
Mines and Quarries  
Southern Manufacturing Progress 1880-1920  
South in Invention  
Lumber Cut  
Value of Cotton vs. World's Gold and Silver  
The Commercial Cotton Crop  
Southern Agriculture  
Expenditures for Fertilizer

Value of Farm Crops in the South  
Grain Production  
Live Stock  
Mineral Production  
Estimated Water-Power  
Developed Water-Power  
Coal Production  
Coal Possibilities  
Iron-Ore Production  
Iron-Ore Resources  
Petroleum Output  
Railway Mileage  
Navigable Length of Southern Waterways  
Commerce at Southern Ports—Exports  
Commerce at Southern Ports—Imports  
Financial Resources of the South  
National Banks  
Estimated True Wealth of the South  
Assessed Value of Taxable Property  
Swamp and Wet Lands  
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Negro Schools in the South  
Assets of Individual Southern States  
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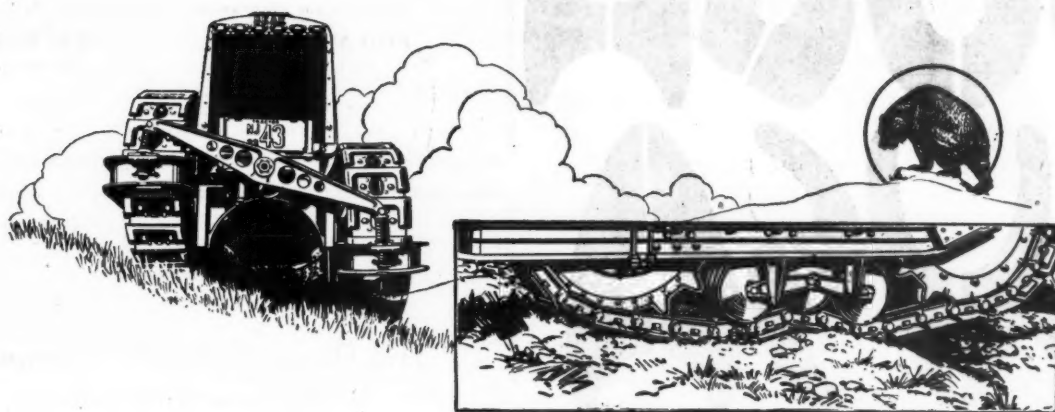
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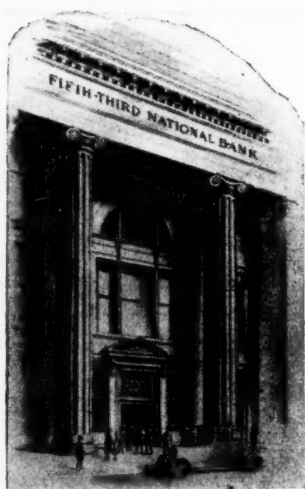
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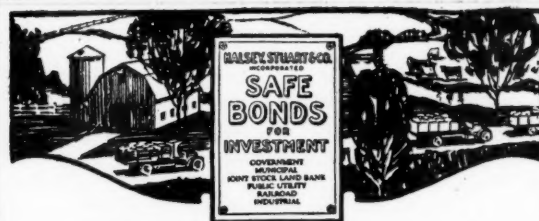
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Sterling S. Lanier  
Gen. Mgr. of Operations

### "It Pays to Swim with the Current"

This is about two spark plugs. At the moment they are lying on the sales manager's desk in the establishment of a large middle-western hardware jobber.

One spark plug bears a name known wherever automobiles are used, the other a name seldom heard.

Both, says the sales manager, are good plugs. On the score of quality they run neck and neck.

"But," he adds, "we are discontinuing this line"—and he holds up the plug of unfamiliar name. "Yes, and our discount on it is larger, too."

"What's wrong with it? Not a thing. It's a good plug—mighty good plug, but—no one knows about it. It isn't advertised—the other one is. The demand is for the advertised make. And we've learned it pays to swim with the current, not against it."

More and more jobbers in every line of business are learning every day that it pays to swim with the current of popular demand.

"Our job," said one jobber, "is to supply markets, not create them. Let the manufacturer make a market for his goods, and we will handle it."

Said another—"Our salesmen carry a catalog with thousands of items in it. They haven't the time to push unadvertised goods. Their work is principally taking orders."

If you go among these wholesalers today to introduce a new product in competition with merchandise nationally advertised, unless the article is exceptional, you will be met everywhere by the injunction: "First go out and get a reputation for your goods through advertising."

The wholesaler knows by actual contact with dealers how they value speed of turnover, goods which move with a minimum of effort, goods people know about and ask for.

Published by the MANUFACTURERS RECORD in co-operation with The American Association of Advertising Agencies

### PATENTS TRADE-MARKS AND COPYRIGHTS

Before disclosing an invention the inventor should write for our blank form, "EVIDENCE OF CONCEPTION." This should be signed and witnessed, and if returned to us, together with model or sketch and description of the invention, we will give our opinion as to its patentable nature.

Our Illustrated Guide Book, "HOW TO OBTAIN A PATENT," sent Free on request. Contains full instructions regarding Patents and Trade-marks.

VICTOR J. EVANS & CO., - Patent Attorneys

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Main Offices: 749 9th Street N. W. WASHINGTON, D. C.

### ENTIRE BOND ISSUES OF SUCCESSFUL INDUSTRIALS PURCHASED

Offerings Invited

Resources - - - - - \$21,000,000

Established 1884

Mercantile Trust and Deposit Co.  
OF BALTIMORE

A. H. S. POST, President. F. G. BOYCE, JR., Vice-President.



# PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close April 9, 1923.

**TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., March 1, 1923.** Sealed proposals are invited to furnish Dextrine, Oils, Textiles, Dry Colors, Paper Boxes, Paper and Check Paper, during the fiscal year beginning July 1, 1923. The right is reserved to reject any or all bids or parts of bids. Samples of Dextrine, Oils, Textiles and Dry Colors must be received at the Bureau of Engraving and Printing not later than 2 P. M., Monday, April 9, 1923. Samples of paper Box Blanks, Paper and Check Paper, must be received not later than 2 P. M., Monday April 2, 1923. Blank forms with specifications for proposals, giving dates on which the bids for the several schedules will be opened, and further information will be furnished on application to Louis A. Hill, Director.

Bids close April 3, 1923.

**PROPOSALS FOR MANILA ROPE.**—Office, Mississippi River Commission, 1st and 2nd Districts, Customhouse, Memphis, Tenn.—Sealed proposals will be received here until 11 a. m., April 3, 1923, and then opened, for furnishing and delivering approximately 103,000 pounds Manila Rope. Further information on application.

Bids close March 26, 1923.

**PROPOSALS FOR GALVANIZED WIRE, WIRE STRAND, STAPLES AND WIRE ROPE CLIPS.**—Office, Mississippi River Commission, 1st and 2nd Districts, Customhouse, Memphis, Tenn.—Sealed proposals for furnishing and delivering 870,000 pounds galvanized wire, wire strand, and staples, and 24,000 wire rope clips, will be received at this office until 11 A. M., March 26, 1923, and then opened. Further information on application.

Bids close April 7, 1923.

**U. S. ENGINEER OFFICE, Drawer 421, Vicksburg, Miss.** Sealed proposals will be received here until noon, April 7, 1923, and then opened for furnishing and delivering about 467,000 pounds of structural metal for locks and dams Nos. 5 and 8, Ouachita River, La. and Ark., and for erecting four steel gates at No. 5 and modifying two steel lock gates at No. 8. Information on application.

Bids close April 2, 1923.

**UNITED STATES ENGINEER OFFICE, Florence, Ala.**—Sealed proposals will be received here until 11:00 A. M., April 2, 1923, and then opened, for furnishing head-gate track, screen track, seat castings, vent-outlet castings, together with bell-mouth castings, etc., for the power house section of Wilson Dam. Further information on application.

Bids close April 3, 1923.

**U. S. ENGINEER Office, Jacksonville, Fla.**—sealed proposals will be received here until 12 M., April 3, 1923, and then opened for dredging and rock removal in Tampa Harbor, Fla. Further information on application.

Bids close April 2, 1923.

## \$100,000 5% Bridge Bonds

Greenville, N. C.

On April 2nd, 1923, at the courthouse in Greenville, North Carolina, the Board of County Commissioners will offer for sale \$100,000.00 of bridge bonds of said county of Pitt, to be dated April 1st, 1923, and to mature serially, \$5000.00 per year, beginning 1928, denomination \$1000.00, bearing 5% interest, payable semi-annually. The bids must be sealed and delivered to the Clerk of the Board by ten o'clock, A. M., April 2nd, 1923. Certified check for \$5000.00 must accompany each bid. Right to reject any and all bids reserved.

W. W. DAWSON, Chairman.  
J. C. GASKINS, Clerk.

**RATE:** 35 cents per line per insertion.  
**PUBLICATION DAY:** Thursday.

**FORMS CLOSE** 4 P. M., Monday.  
**DAY LETTER:** When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

**THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:** Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest. The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements. The same rate applies—35 cents per line per insertion.

Bids close April 2, 1923.

## \$250,000 5% Bonds

Dobson, N. C.

On the first Monday in April, 1923, at 12 o'clock M. at the courthouse in Dobson, One Hundred and Fifty Thousand (\$150,000.00) Dollars of Surry County Good Road Bonds will be offered for sale at public auction. The bonds run thirty years and bear five per cent interest, with coupons attached, payable semi-annually. All bids must be accompanied with a certified check of Twenty-Five Hundred (\$2500.00) Dollars. The Board reserves the right to reject all bids.

At the same time One Hundred Thousand (\$100,000.00) Dollars of thirty year Surry County bonds, bearing five per cent interest, with coupons attached, payable semi-annually, will be offered for sale. The said bonds are issued to refund bonds heretofore issued for necessary expenses of the county. Sale of these bonds will be made at public auction and all bids must be accompanied with a certified check of Twenty-Five Hundred (\$2500.00) Dollars.

The opinion of Reed, Dougherty & Hoyt of New York will be furnished as to the validity of the bonds on the day of sale. This 5th day of March, 1923.

Board of County Commissioners of Surry County.

By W. J. BYERLY,  
Chairman.

Bids close April 2, 1923.

## Steel Bridge

Fayetteville, N. C., March 9, 1923.

The County Commissioners of Cumberland County, North Carolina, will receive bids up to April 2nd, 1923, at 12 o'clock, noon, for a one span steel bridge 80 feet long with a 16 foot driveway.

Bids will be received either for the bridge delivered or for the bridge erected.  
E. A. POE, Chairman.  
C. C. HOWARD, Clerk.

Bids close April 10, 1923.

## Draw Bridge

Bids will be opened at two p. m. on April 10, 1923, for furnishing and installing a standard steel turn draw on a concrete center pier for bridge across Indian River at Quay, St. Lucie County, Florida. Over all length of draw approximately 145 feet. Write to Carter & Damerow, Vero, Florida, for full information.

## Bridge Contract to Sub-Let

To Sub-Let bridge contract at once Ashe County, North Carolina, Project 712 Approximately 1200 cu. yds.

J. T. PLOTT,  
Greensboro, N. C.

Bids close April 9, 1923.

## Concrete Roads

Shreveport, La.

Bids will be received by Police Jury of Caddo Parish, Shreveport, La., until 10 A. M. April 9th, for construction of five miles of eighteen foot concrete road. Full particulars may be obtained from J. T. Bullen, Parish Engineer, Shreveport, La.

Bids close March 19, 1923.

## Street Paving

Greensboro, N. C.

Sealed proposals will be received by the City Clerk in the office of the City Manager, City Hall, Greensboro, North Carolina, until 2 P. M., Monday, March 19, 1923, and then publicly opened and read, for the paving of approximately 150,000 square yards of improved streets, and doing other work incidental thereto, embraced in three contracts. One contract for cement concrete paving and the other two for Sheet Asphalt and Bituminous Concrete Paving.

Plans, specifications and proposal form may be obtained at the office of the Highways Engineer, City Hall, on payment of \$5.00, which will be refunded if bid is submitted. The sealed proposals shall be addressed to P. C. Painter, City Manager, City Hall, and be on the official form provided for that purpose, and shall be accompanied by certified check, drawn on a Clearing House Bank, and made payable to the "City of Greensboro," for the sum of \$5000.00 for each contract.

The right is reserved to reject any or all bids.

P. C. PAINTER,  
City Manager.

GEORGE E. FINCK,  
Highways Engineer.

Bids close March 24, 1923.

## Street Improvements

Charlottesville, Va.,

Sealed proposals will be received by the City Manager of the City of Charlottesville, Va., until 12 o'clock noon on March 24, 1923, for Street improvement; consisting of grading, curbing, paving and resurfacing.

Alternate proposals will be received for various types of surfaces. Estimated square yardage for this proposal 120,200. The City Manager reserves the right to increase or decrease this quantity.

Plans and specifications are on file in the office of the Engineer. Copies of the specifications and proposal blanks may be obtained from the City Manager.

Each proposal must be accompanied by a certified check for ten thousand dollars (\$10,000) payable to the Treasurer of the City of Charlottesville, Va.; to be returned in case the proposal is rejected or to be forfeited in case the bidder should refuse to enter into a contract in accordance with his proposal and the specifications.

The right is reserved to reject any or all bids.

BOYD A. BENNETT,  
City Manager.

Bids close March 21, 1923.

## Street Improvements

Enfield, N. C.

Sealed proposals will be received by the Mayor and Commissioners of the Town of Enfield, N. C., at the Mayor's office in Enfield, N. C., until 3:00 P. M., March 21st, 1923, for the construction of Street Improvements.

The work will consist of approximately 25,000 square yards of Sheet Asphalt or other bituminous pavement on a concrete base, 17,500 lineal feet combined concrete or granite curb and gutter, 8500 square yards concrete sidewalks, 18,000 cubic yards excavation, 5500 lineal feet Vitrifed pipe storm drains size 12-inch to 30-inch inclusive, 20 storm drain manholes, 50 catch basins, etc.

Proposals must be marked "Proposal for Street Improvements for the Town of Enfield, N. C." All bids must be submitted upon blank forms provided in copies of the proposal, contract and specifications.

Each bid must be accompanied by a certified check for five (5) per cent of the amount of the bid, as evidence of good faith.

Plans, copies of the proposal, contract, specifications, etc., may be obtained upon application to the Engineer.

The Town reserves the right to reject any or all bids and to award contracts which appear to be for the best interests of the Town.

ALLAN W. ANDLETON, Mayor.  
WILLIAM C. OLSEN, Engineer,  
Kinston, N. C.

Bids close April 5, 1923.

**Steam Shovel**

Key West, Fla., March 9, 1923.

The Board of County Commissioners of Monroe County, Florida, will on the 5TH DAY OF APRIL, 1923, receive bids for the purchase of a one-yard steam shovel; also for a three-quarter yard steam shovel, with 30 Hp. A. S. M. E. boiler, duplex engine, multipedals traction, twenty-one foot boom reach, drums to be furnished for dipper, drag line, clam shell or skimmer, the machine to be of interchangeable type, but only one type will be ordered with full equipment.

Illustrations and full description must accompany each bid.  
All bids must state price delivered at Miami, Florida.

Bids must give price (A) equipped to burn wood (B) equipped to burn oil.

A certified check for one per cent of amount must accompany each bid.

The Board of County Commissioners reserve the right to reject any or all bids.

D. J. FILER,

Clark Board of County Commissioners,  
Monroe County, Florida.

Bids close March 21, 1923.

**Sanitary Sewers**

DEPARTMENT OF PUBLIC IMPROVEMENTS SUB-DEPARTMENT OF HIGHWAYS ENGINEER.

Baltimore, Md., March 7, 1923.

Sealed bids or proposals for the construction of Sanitary Sewers in Districts 49-A and 49-B, as outlined in Sanitary Contract No. 198, comprising approximately:

390 Lin. Ft. 12" Vitrified Pipe Sewer.

183 Lin. Ft. 10" Vitrified Pipe Sewer.

15706 Lin. Ft. 8" Vitrified Pipe Sewer.

6223 Lin. Ft. House Connections.

72 Manholes.

and other miscellaneous work incidental to the above will be received until 11 A. M. on Wednesday, March 21st, 1923.

Proposals must be made in duplicate and must be addressed to the Board of Awards and sent to the Office of the City Register, City Hall, Baltimore, Maryland, accompanied by a certified check of the bidder for One Thousand Dollars (\$1000.00) on a clearing house bank, drawn to the order of the Mayor and City Council of Baltimore.

Right is reserved to reject any and all bids.

Bond in the amount of the contract price will be required for the proper performance of the contract.

Specifications and plans may be obtained at the Office of the Highways Engineer, City Hall, Baltimore, Md., on the payment of five dollars (\$5.00), which will be refunded upon the return of the Specifications and plans in good condition.

CHARLES F. GOOD,

Highways Engineer.

A. E. CHRISTILF,

Chief Engineer.

Approved:

WM. F. BROENING,

President Board of Awards.

Approved:

FRANK DRISCOLL,

Assistant City Solicitor.

**Bituminous Materials and Work.**

READVERTISEMENT

OFFICE OF THE VIRGINIA STATE  
HIGHWAY COMMISSION.

413 North Tenth Street,

Richmond, Virginia.

February 28th, 1923.

Sealed bids will be received at the office of the Virginia State Highway Commission, 413 North Tenth Street, Richmond, Va., until 10:30 o'clock, Wednesday, March 21st, 1923 for the following bituminous materials and work:

Approximately 1,402,509 gallons Bituminous Surface Treatment.

Application of 1,402,509 gallons of Bituminous Surface Treatment in six groups.

Of the above, approximately 544,000 gallons of Bituminous Surface Treatments, are expected to be used on State Aid Work, contracts to be made with the local road authorities in the various Counties where this work is to be done.

Specifications are on file at the Office of the Virginia State Highway Commission, Richmond, Va., and will be mailed prospective bidders upon request.

A certified check for 5% of the amount of bid, not to exceed \$5000.00 must accompany each proposal, payable to the Chairman of the State Highway Commission.

The State Highway Commission reserves the right to reject any or all bids.

Chairman State Highway Commission.

H. G. SHIRLEY,

Acting State Highway Commissioner.  
C. S. MULLEN,

Bids close March 21, 1923.

**Water Works Improvements**

Roxboro, N. C.

Sealed Proposals will be received by the Mayor and Board of Commissioners of the Town of Roxboro, North Carolina, until 2 o'clock P. M. Wednesday, March 21st, 1923 for developing a new source of water supply. The principal items entering into the work are as follows:

Laying 20,000 feet of 12-inch cast iron B&S water pipe.

Building concrete and brick filter plant;

concrete and brick pumping station;

concrete reservoir; and

earth dam with masonry spillway.

Furnishing and erecting filter equipment.

Furnishing and installing one 500 GPM

centrifugal pump with electric motor

and one 500 GPM centrifugal pump

with gas engine drive.

Clearing impounding reservoir site—60

acres.

Plans will be on file and may be seen at

the office of The Ludlow Engineers at

Winston-Salem, N. C. or at the office of

the Mayor at Roxboro, N. C. after March

1st. After that date copies of the Specifi-

cations, Bid Blank, and Contract Form

may be obtained from the Engineers.

For the convenience of prospective bid-

ders the Engineers will furnish full set

of blue print copies of the plans upon

application accompanied by a check for \$7.50 to cover the cost, or separate prints at \$1.00 each.

Each bid must be accompanied by a certified check payable to the Treasurer of the Town of Roxboro in the sum of \$4000 with complete bids, or approximately 5% of the amount of partial bids.

Proposals will be opened publicly with the usual rights reserved.

DR. W. A. BRADSHAW

The Ludlow Engineers.

Winston-Salem, N. C. G. W. KANE

J. L. LUDLOW, R. L. HARRIS

Water Works Committee

Consulting Engineer.

Bids close April 5, 1923.

**Water Works and Sewerage Improvements**

Fayetteville, N. C.

Sealed proposals will be received by the Public Works Commission of the City of Fayetteville, N. C., until 3:00 P. M., April 5th, 1923, for improvements to the City Water Works and Sewerage Systems.

The improvements consist of furnishing and laying approximately 1600 tons of cast iron water pipe and special castings, sizes 6-inch to 12-inch inclusive, and furnishing valves and hydrants; the construction of a 300,000 gallon elevated tank, etc.; furnishing and laying approximately 87,000 feet of vitrified pipe sewers, sizes 8-inch to 18-inch inclusive; the construction of 293 manholes and 20 flush tanks; and miscellaneous improvements to the pumping and filter plants such as equipment of present filters with new manifold and strainer systems, rate controllers, loss of head and rate of flow gauges; and the furnishing and installation of one chlorinator, one motor driven centrifugal pump, one Venturi meter, etc. The plant improvements also include the construction of various concrete structures.

Proposals must be marked "Proposals for Water Works and Sewerage Improvements for the City of Fayetteville, N. C." All bids must be submitted on blank forms to be provided in copies of the proposal, contract and specifications.

Each bid must be accompanied by a certified check for five (5) per cent of the amount of the bid, as evidence of good faith.

Plans, copies of the proposal, contract and specifications, etc., may be obtained upon application to the Engineer or these may be seen at the office of the Secretary of the Public Works Commission in Fayetteville.

The Commission reserves the right to reject any or all bids and to award contracts which appear to be for the best interests of the City.

H. J. McBUIE, Secretary,  
Public Works Commission,  
Fayetteville, N. C.

WILLIAM C. OLSEN,

Consulting Engineer.

Kinston, N. C.



## CLASSIFIED OPPORTUNITIES

**MINERAL AND TIMBER LANDS WATER POWERS, MISCELLANEOUS PROPERTIES**

Wealth in virgin coal fields in Northern Alabama, near Tennessee River. Ready to mine with electric equipment; entries driven. Superior domestic, steam and gas coal; unsurpassed in the South as an export coal. Iron ore, fire-clay, cement rock and limestone in vast quantities. Five million feet of Poplar Oak and Hickory timber on property. Industrial railroad connecting with Southern Ry. system. Soil overlying 16,000 acres, ideal for cattle, sheep and Angora goats and for fruit raising. For full particulars, price and terms, write F. D. Pierce, 1505 E. Genessee St., Syracuse, N. Y.

OIL LEASES: For sale or lease: 7000 acres shallow sands, West Kentucky.

W. S. Lowery,

Salem Star route, Marion, K.

**RATES AND CONDITIONS**

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

**MINERAL AND TIMBER LAND**

FOR SALE OR LEASE—The mineral and mining rights in 200 acres containing by estimate two million tons of brown phosphate rock running 65% to 75%, one mile from L. & R. R. and 40 miles from Muscle Shoals. Government expert has examined and pronounced this ore superior for briquetting and new furnace process. A fine location for Ground Rock Plant. A most attractive price for investment or lease. Investigation invited. Dr. C. A. Abernathy, Pulaski, Tenn.

**COAL LANDS AND MINES**

FOR SALE—Going coal mines—coal, oil and gas lands—timber tracts. Reports made on same anywhere. E. H. Morris, Box 518, Charleston, W. Va.

TWO NON-UNION MINES, United States navy quality coal, New River district; electrical machinery, large acreage, can be bought separately or together, moderate price. Inquire, W. H. McFarland, Pittsburgh, Pa.



COAL LANDS AND MINES

25,000 ACRES WEST VIRGINIA SMOKELESS COAL LANDS. Will syndicate the above with party of proven financial strength and energy to assist in its immediate development. A. Blaine York, 1246-5th Ave., Huntington, W. Va.

COAL—COAL—COAL

Six thousand acres of proven coal land in the center of one of the best coal fields in the country. Crossed by railroad. Near St. Louis. Drill tests and analysis of coal on application. Can give very low price for a short time. M. VON BOSTON, 114 East Del Norte St., Colorado Springs, Colo.

TIMBER AND TIMBER LANDS

FOR SALE—Forty thousand acres virgin Long Leaf Pine, estimated to cut one hundred million feet. Also fifty thousand acres cruised at ninety million feet, Long Leaf Pine, and seventy-five million feet of hardwoods and Cypress. F. W. Blair, 808 West 6th St., Chattanooga, Tenn.

HARDWOOD TIMBER for sale—3000 acres in Western North Carolina—oak, poplar, chestnut-hickory-pine, near railroad, excellent orchard land when cleared, good summer pasture now, ideal game preserve—contains quail, squirrels, rabbits, possums, coons, turkeys, trout, natural range for deer. Timber worth more than price for land and timber. Easy terms. W. M. Pratt, 16 Franklin Street, Annapolis, Md.

BLACK WALNUT LOGS.

Who wants two cars of BLACK WALNUT LOGS. write BONA LUMBER COMPANY, San Augustine, Tex.

FARM AND TIMBER LAND

FLORIDA—Timber, Colonization and Fruitland tracts any size; best in Florida. MAURER & COMPANY, Orlando, Fla.

FARM, FRUIT, AND TRUCK LANDS

ALABAMA

ALABAMA PLANTATION—Four thousand acres, improved, two residences, barns, tenant houses, under fence, ten million feet virgin timber, timber on place will more than pay for purchase price of place. Address, Willard Barbour, c/o McGowan Lyons Ldw. Co., Mobile, Ala.

FLORIDA

FLORIDA:—National Statistics show that FLORIDA is developing faster than any other State in the Union. It is indeed a land of great resources and opportunities—the playground of the Rich; the Paradise of the Poor. Come and be one of us. We have a Home, Grove or Farm for you. Send for booklet "Largest Orange Tree in the World." Tampa-West Coast Realty Co., (Inc.), Opposite Post Office, "Since Before the War," Tampa, Fla.

GEORGIA

SOUTHWEST-GEORGIA LANDS.

Farm and Stock Raising. 1000 Acres on Trunk line railroad; Railroad Station; Railroad South and East to Coast; National Highway dividing the tract; 750 acres cleared and in cultivation; 150 acres Pasture; 100 A. Woodland and timbered; Running water; 3 Cottages; 4 Tenant Houses; Red and gray lands, level majority little rolling, in one body; half way between 2 good towns, 4 miles each; one railroad junction. Health fine, delightful climate. Address H. M. P., P. O. Box 285, Lumpkin, Ga.

NORTH CAROLINA

FOR SALE—Fifty acres on Rail road at Lincolnton, plenty of water, fine elevation, good Mill site. R. E. Costner, Mt. Holly, N. C.

SOUTH CAROLINA

Truck farms that pay dividends annually can be bought at reasonable prices here. Vegetables are shipped eight months in the year. Three and four crops are grown on the same land annually. Excellent climate and health. Plenty of labor; strikes unknown. Well organized association that sells all farm products. For particulars write, Lake Realty Company, Beaufort, S. C.

BUSINESS OPPORTUNITIES

AN UNUSUAL INVESTMENT OPPORTUNITY.

To settle an estate that has been in successful operation for 69 years we offer two great cotton mills, two sugar mills, electric light plant supplying a growing city, alcohol plant, 600,000 acres of land, 25,000 head horses and cattle. With 20% development it is now paying \$800,000 annual dividends; with 50% development it would easily pay \$2,500,000 annually. No more substantial or profitable business ever established on the Western Hemisphere, and certainly none more fascinating; admirably located in foreign country 1000 miles from American border. Price \$5,000,000. Only those who are able to buy or promote a corporation to take it over will be considered. Lock Box 1273 Memphis, Tenn.

Wanted: A forwarding agent for a large concern that is figuring on an Export Department. Address No. 6138, care Manufacturers Record, Baltimore, Md.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW, Harlow Building, Alexandria, Va. Colorado Building, Washington, D. C.

A NATIONALLY known corporation will turn over exclusive territory on either commission basis or special prices to a going sales organization canvassing the agricultural trade, who could give aggressive representation to the sale of kerosene engines, lighting plants, engine driven compressors, diaphragm pumps, and similar equipment. Address No. 6142 care Manufacturers Record, Baltimore, Md.

WANTED: Good reliable parties to help develop the following properties in Macon County, N. C. to wit: Asbestos, Soapstone, Mica, Kaoline and Feldspar. W. B. McGuire, Franklin, N. C.

FOR RENT—Three story practically new brick building located about fifty yards from the depot on railroad track in the heart of town, no drainage necessary on any goods shipped in or out owing to location of building. This building is suitable for hardware store or seed and feed business. A fine opening for either of the businesses mentioned in a town of two thousand people with electric lights and water, paving soon to be done, practically no competition. Fine agricultural section with almost unlimited territory since the opening of the big new bridge across Roanoke River. Considered one of the finest business for a hardware store or seed and feed business any place to my knowledge. Rent reasonable for the amount invested. An opportunity for some progressive man with capital to do a big business and make a big success. Interested parties address J. G. Staton, Williamston, N. C.

WANTED—A buyer for a half interest (\$7500) in an undeveloped "Gold & Copper" mining property, 100 acres, in N. C., showing good surface values—Railway Crossing. Have order for 1000 tons of concentrates. J. H. Thain, General Delivery, Charlotte, N. C.

WANTED:—\$3000 to \$5000, by a going concern in western Va. that wants to expand, this includes third interest in the business with or without services, this business has paid over 20% on capital invested in 1922, do not waste our time unless you mean business. Address No. 6128, Care of Manufacturers Record, Baltimore, Md.

COLLECTIONS

"Send your past due accounts to us for collection. Commission basis. Correspondents everywhere. Herbert Co., Rand-McNally Building, Chicago, Ill.

FINANCIAL

Valuable text books on the "Money Question". The most vital question affecting the welfare of the people.—"Daniel on Real Money". New edition being published. "High Cost of Living, Cause-Remedy." 75c. "The Betrayal of the People in the Federal Reserve Act." 25c. "The Real Issue—Democracy vs. Plutocracy." 25c. No Plutocratic Peace But a Democratic Victory." 20c. The Monetary Educational Bureau, Kellogg Building, Washington, D. C.

FINANCIAL

SOUTHERN MILL STOCKS BANK STOCKS BONDS.

25 years' experience in this Field. F. C. ABBOTT & CO., Charlotte, N. C.

"INCORPORATE any enterprise under common law; any capital, transact business any state; no corporation taxes; no personal liability; keep control; very reasonable. Booklet free. Reinshagen, 2 Rand-McNally Building, Chicago, Ill."

INDUSTRIES WANTED

INDUSTRIES WANTED. INVESTIGATE Boonville, Missouri, before deciding upon location for any factory or other industry you may be contemplating. Ideal conditions, and co-operation afforded. Address H. C. Neff, Secy., Chamber of Commerce, Boonville, Mo.

WASHINGTON, GEORGIA—In the heart of the cotton fields. Surrounded by pulp woods and hardwoods. Native white labor. No unions. No strikes. Cheap power available. The ideal location for cotton mills, pulp mills, furniture factories and other manufacturing enterprises. Write. Come and look us over. KIWANIS CLUB.

FREE FACTORY SITES on Belt Line, connecting four trunk line railroads, high tension electric line, two water mains, concrete boulevard.

We own over 4000 acres of land all platted into factory, park, school and church and building sites.

An ideal location for an industrial center, where you can locate your factory and secure cheap building sites for labor.

We will give extraordinary inducements to those who will promote desirable industries.

Write for map showing location, etc. NANSEMOND INDUSTRIAL CORP. 4 Arcade Bldg., P. O. Box 438 Norfolk, Virginia.

DECATUR OFFERS, RENT FREE for five years, a stone building of four floors, each 30 x 40, total square feet 4800, to any who will start textile industries, cap, shirt, overall, gingham dress, or similar factories. Electric power may be bought cheap; 2500 population, on railroad main line, Ft. Worth 40, Dallas 75 miles, have water, natural gas, white unorganized labor. Good schools and citizenship and cooperation. Address, CHAMBER OF COMMERCE, Decatur, Texas.

TEXTILE MILLS WANTED.

Big inducements to offer mills desiring to locate in the South. Best climate and living conditions—ample native born labor at cheap wages—unlimited hydro-electric power at low rates—best grade North-East Georgia cotton grown in this section.

Inducements will be offered on tax exemptions—good locations on main and branch lines of Southern R. R. are available—full co-operation of citizenship—Toccoa, Georgia has real inducements to offer investors in the cotton mill industry. Write Kiwanis Club of Toccoa, Georgia.

INDUSTRIAL PLANTS

FOR SALE OR LEASE. Nearly new 40,000 capacity brick plant near Shreveport, La., have never supplied demand for brick. Good opportunity for parties who know the business. Address P. O. Box 404 Winnfield, La.

FOR SALE—ON EASY TERMS

Modern two story brick building 55 by 310 feet regular mill construction, fully sprinkled, large platform and sidetrack facilities for eight or ten cars. Large elevator. Adjoining this building is a single story brick building 50 by 90 feet, with boiler room in one section, balance concrete floor. This is an excellent plant and especially suitable for hosiery or knitting mill, located in best city in North Carolina. J. E. LATHAM CO. OWNERS Greensboro, N. C.

FACTORY for sale or lease. All or part of 100,000 sq. ft. floor space. Sprinkler System. Steam Heat. Railroad Siding. Central location. Wire King Thompson, 52 West Gay St., Columbus, Ohio.

## INDUSTRIAL PLANTS

Mr. MANUFACTURER:  
NORTH CAROLINA  
THE BEST STATE IN THE UNION  
INVITES YOU

If you wish to remove your plant or open a Branch in the Southland where climate and labor conditions are most favorable:

We have a 100x100 ft. Brick and Concrete building, 2 stories, located on Main street of a fine market town, facing N. & W. Depot permanent Railway siding one side, cross street on the other.

For sale easy terms, or long lease.

Write us today  
THE AUTOSERVE COMPANY  
MADISON, N. C.

FOR SALE or lease a small modern equipped crushing and pulverizing plant and quarry consisting of about 50 acres, underlaid with a high quality Clinton strata blue limestone 30x500 ft. open face dry quarry 94.20 carbonate extra quality road stone also makes extra strong burned lime. Big local demand. Plant in operation. Fine location for a larger plant as it is located in a territory of splendid markets and has a great future industrially. Plant near Lynchburg. Want to retire on account of age and health. Call on or address Frank Sharp, Lynchburg, Ohio.

FOR SALE—Textile mill construction building 100x300 ft. with fourteen acres land; two thousand feet railroad siding. Additional acreage obtainable, good town, mill section of Georgia, native labor plentiful. Will take stock in textile enterprise for payment and can secure additional stock subscriptions. Write or wire, Manget Bros. Co., Newnan, Ga.

## FACTORY SITES

Factory sites free. Best shipping facilities in middle west. Three R.R.N.Y. Central, Wabash, Pennsylvania. On Toledo to Chicago pike. We will assist in getting you started. Butler, Indiana, Business Association Men.

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Suitable for Practically Any Line. Will sell as an inducement to increase Laurel's factories. Adjacent to our plant. Will sell sawmill refuse as fuel to cost in our opinion not more than \$2.00 ton cost. Wausau Southern Lumber Co. Laurel, Miss.

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For sale or Lease, plot 250 by 1200 feet, centrally located on deep water and railroad yards. Exceptional location for factory, warehouse or terminals. Myron L. Howard, Box 1115.

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INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandler & Chandler, 412 7th St. N.W. Washington, D. C.

Patent expert, engineer, attorney, formerly Examiner in Patent Office, offers introductory services and advice free to manufacturers and inventors for their future patronage. Patent Manager, L. S. Machine Co., 162 N. Desplaines St., Chicago.

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PATENTS, TRADE-MARKS AND COPYRIGHTS—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEPTION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service. Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

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## PATENT SENSE

"The Book for Inventors and Manufacturers." FREE. WRITE LACEY & LACEY, Dept. 15, Washington, D. C. Est. 1869.

## AGENCIES WANTED

MANUFACTURERS' AGENTS.—Wanted in every industrial state, acquainted with the trade to sell a high grade complete line of OXY-ACETYLENE WELDING AND CUTTING EQUIPMENT. Address No. 6134 care Manufacturers Record, Baltimore Md.

## SITUATIONS WANTED

Superintendent or Asst., age 40 technically trained, 18 years practical field experience in construction, operation, and maintenance of crusher and concentrating plants with power installation—competent in quarry and pit operation, efficient training and organizing of operating crews, available now. A. 1 references. Address No. 6133 care Manufacturers Record, Baltimore, Md.

YOUNG MAN.—For past 12 years engaged in teaching desires change to business line. Manufacturers or distributors of high-class products who wish widely acquainted resident representative in Shenandoah Valley of Virginia are invited to investigate. Address P. O. Box 193, Harrisonburg, Va.

WANTED: Position to operate an Austin Trench Machine or Filler. Go anywhere. Can furnish best of references. P. O. Box 47, College Park, Md.

SALESMAN Capable and energetic with pleasing personality, successful sales record, acquainted with hardware and auto accessory jobbers on Atlanta Coast, managing small business at present—open for connection April 1st or sooner—will travel anywhere, can furnish best references. Address, No. 6143 care of Manufacturers Record.

## ARCHITECT AND STRUCTURAL ENGINEER.

Wishes to locate with construction Co. in N. C., as Gen'l Supt., estimator or designer, 22 years practical and technical experience in all kind of construction; familiar with Southern conditions, having been located in the South for the past 3 years. At present employed as Supt. and Architect but desire to locate South again. Would also consider proposition to associate with established architect. Permanent location desired. Address No. 6139 care Manufacturers Record.

A position wanted by an experienced grading and track foreman, can also run a boarding camp for the laborers. Address No. 6135 care Manufacturers Record.

## SITUATIONS WANTED

"Middle aged man, twelve years experience as executive, efficient and trustworthy, wishes connection in Southern City. Address, 6141 care of Manufacturers Record.

Engineer, 35, single, college education; general engineering experience, design and estimating reinforced concrete construction, building specialties estimating; four years responsible charge; desiring position with company manufacturing engineering or building materials. Sales or production work preferred. References. No. 6140 care of Manufacturers Record, Baltimore.

Salesman; With 13 years experience traveling North and South Carolina also Georgia handling a complete line of Machinery is open for a proposition. Address No. 6144 care Manufacturers Record.

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Salaried positions \$2500 to \$25,000 upward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified, and receptive to tentative offers for a new connection, you are invited to communicate in strict confidence with the undersigned, who will conduct preliminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, without jeopardizing present connections, and in a manner conforming strictly to professional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lockwood Building, Buffalo, N. Y.

SUPERINTENDENT WANTED—A good practical Semi-technical man for local Superintendent for Sulphur-fertilizer plant in Texas. Should be able to lay Service railroad, operate a narrow gauge line with gasoline engine motor, know how to quarry rock, and handle it through the mill which consists in grinding dry in a Hardinge conical mill, and sacking for shipment. Good chance for advancement as business is growing. Address No. 6127 care Manufacturers Record, Baltimore, Md.

LARGE and long established lumber company, having acquired interests in Mexico, wants business manager for Mexican operations. Not necessary to be lumberman, but must know how to figure costs. Address, with qualifications, salary expected, etc. No. 6132 care Manufacturers Record, Baltimore Md.

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In the South. The MANUFACTURERS RECORD wants subscription representatives in every Southern community; alert, aggressive men who can give either whole or part time to the work. Liberal remuneration and attractive territories open. In submitting application please give age, experience in soliciting work, names and addresses of references and whether you are prepared to give all or part time and if only part time what lines you are now representing. Also please state if you are in a position to travel. Only applicants who are prepared to furnish the very best of references as to character and ability will be considered. Address: Circulation Department, Manufacturers Record, Box 548, Baltimore, Md.

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Brick factory with 7 acres valuable land in city limits of Frederick, Md., Electric lights, city water. B. & O. switch alongside property. Pennsylvania freight station nearby. Can be bought in entirely easy terms at less than value of buildings. Floor space about 20,000 sq. ft.

## SECURO COMPANY, INC.

9 E. Lexington St. BALTIMORE, MD.

Telephone Calvert 4442



At a Stated Term of the District Court of the United States for the District of Rhode Island, Held at the City of Providence on the Third day of March, 1923.

PRESENT, HON. ARTHUR L. BROWN, Judge.

**AMERICAN & BRITISH SECURITIES CO., Plaintiff, against AMERICAN & BRITISH MFG. CORP., Defendant — Equity No. 131**

Geo. C. Van Tuyl, Jr., Ancillary Receiver herein, having duly moved this Court for an order authorizing and directing the sale of the assets of the defendant corporation at public auction, and under the rules and practice of this Court, and said motion having come duly on to be heard before me on this 3rd day of March, 1923, and William Dewey Loucks, Esq., Counsel to the Defendant Corporation, Henry V. Poor, Esq., Counsel for the Committee of Creditors, Messrs. Larkin, Rathbone & Perry, Counsel for the Central Union Trust Company of New York, as Trustee, under a certain trust mortgage, more particularly described in the petition of the Receiver herein, Charles F. Choate, Jr., Counsel for the New Idria Quicksilver Mining Company and G. W. McNear, Inc., mortgagees, having received notice of said motion, proof of such notice having been duly filed herein, and Ralph Greenlaw, and Louis H. Strouse, Counsel to the Receiver, having appeared in support thereof.

Now, upon all the pleadings and proceedings heretofore had herein, and upon the petition of the said Ancillary Receiver in Equity, verified the 28th day of February, 1923, and upon motion of Ralph Greenlaw, and Louis H. Strouse, Counsel for said Receiver, it is

Ordered that all of the property, assets and effects except cash and accounts and choses receivable of American & British Manufacturing Corporation, the defendant above named, now in possession or under control of the aforesaid Ancillary Receiver, be sold to the highest bidder at public auction sale, subject, however, to the limitations hereinafter contained:

First: Parcel A. Shall comprise all the land and buildings of the defendant corporation located in the District and State of Rhode Island, and all the right, title and interest of the Receiver and Ancillary Receiver therein, more fully described as follows:

(a) "All that certain tract or parcel of land, with all the work shops, buildings and other improvements thereon, situated in the northerly part of the City of Providence, in the State of Rhode Island, and comprising the manufacturing establishment and plant formerly belonging to the American & British Manufacturing Company, and prior to the Corliss Steam Engine Company, and more particularly bounded and described as follows, to wit: Northerly, partly by land now or formerly of the Rhode Island Tool Company, and partly by West River Street; easterly, partly by said West River Street and partly by Cross, formerly Burt Street; southerly, partly by said Cross Street and partly by Charles Street; westerly by the railroad formerly called and known as the Providence and Worcester Railroad, being the tract or parcel of land designated as Lot Numbered 2, on Assessor's Plot No. 76, in the office of the Assessor of Taxes in the said City of Providence except the portion theretofore conveyed to The New York, New Haven & Hartford Railroad Company, containing three hundred sixty-one thousand, one hundred seventy-eight (361,178) square feet of land, be the same more or less; also

(b) "All that certain tract or parcel of land situated in the southerly and westerly side of Admiral Street, in said City of Providence, and bounded and described as follows, to wit:

"Beginning at a point in the westerly line of Admiral Street, forty (40) feet northerly from the intersection of the northerly line of Chad Brown Street with said westerly line of Admiral Street; thence turning at right angles to said westerly line of Admiral Street and running westerly ninety-eight (98) feet, thence southerly on a line parallel with and ninety-eight (98) feet distant from said westerly line of Admiral Street, forty and one-half (40½) feet to the northerly line of said Chad Brown Street, thence turning and running in a westerly direction, following the said northerly line of said Chad Brown Street, five hundred and two (502) feet; thence turning and running northerly parallel with and six hundred (600) feet distant from said westerly line of Admiral Street, two hundred and forty-three and fourteen one-hundredths (243.14) feet; thence turning at right angles and running six hundred (600) feet till it comes to the westerly line of Admiral Street; thence turning at right angles and running southeasterly in said westerly line of Admiral Street two hundred (200) feet to the point of beginning, and containing three and two hundred and thirty-five thousandths (3.235) acres of land, except so much thereof as has been deeded to the City of Providence for highway purposes; the above two parcels being the same premises heretofore conveyed to the International Power Company by Alfred H. Hoadley, of Providence, Rhode Island, by deed bearing date the 3rd day of May, 1902, and recorded in Providence, Rhode Island, in Records of Deeds, Book 445, page 440, on May 5th, 1902; and being the same premises conveyed to American & British Manufacturing Corporation by American & British Manufacturing Company by deed dated July 1, 1919, and duly recorded in Providence, Rhode Island, in Records of Deeds."

Parcel B. Shall comprise of the heavy or fixed machinery of the defendant corporation located in the plant or factory of the defendant corporation or elsewhere in the State of Rhode Island, including all the right, title and interest of the Receiver and Ancillary Receiver therein.

Parcel C. Shall comprise all the office furniture, tools, equipment and merchandise belonging to defendant corporation located in the plant or factory of the defendant corporation or elsewhere in the State of Rhode Island.

Second: The property shall be sold under the following conditions and in the order named herein, viz.:

(a) It shall be first offered as an entirety and a record shall be kept of the amount of the highest bid so received.

(b) Immediately thereafter bids shall be asked for the land and buildings only as a whole or in parcels, and a record shall be made of the highest bid then received.

(c) Thereupon bids shall be asked for the machinery, equipment and all other personal property in one lot, and a record shall be kept of the highest bid so offered.

(d) And finally the machinery, equipment and all other personal property shall be offered in individual lots, and the said lots to be set out and described at least two weeks in advance of the date of sale; and a record shall be kept of each bid offered for each lot; the lots to be sold in the order of listing.

When all the assets have been offered as defined in (a), (b), (c), (d) a computation shall be immediately made to determine which combination of bids made will yield the highest price to the estate as follows:

If the price offered for the real estate and personalty as an entirety shall exceed the total of the highest bids for the real estate offered separately and the personalty offered separately or in lots it shall be submitted for confirmation.

If the price offered for the real estate and personalty as an entirety shall not exceed the total of the respective bids when offered individually, then the bids offered individually shall be submitted for confirmation subject to the following:

If the aggregate of the bids offered for the individual lots of personalty shall exceed the bid for the personalty in one lot, then the former shall be submitted for confirmation, but not otherwise.

Further ordered that all bids shall be expressly made and accepted by the Auctioneer and the Receiver, conditioned upon the approval of this Court and shall be accompanied by cash or certified cheque for at least ten per cent (10%) of the amount of such bid, drawn upon a Bank or Trust Company acceptable to the Receiver and payable to his order. Deposits received from unsuccessful bidders shall be returned to them upon the final rejection of their bids. The deposit of the successful bidder or bidders may be applied on account of the purchase price, or may be held as security for the performance by the bidder of the terms of his accepted bid, and in the event of his failure to perform in full the terms and conditions of the decree of confirmation, the full amount of the deposit may be declared by the Court forfeited. The balance remaining unpaid on any and all accepted bids, as provided by the Court, shall be paid to the Receiver within five days after the entry of Order of Confirmation without further notice to the successful bidder or bidders. Any bidder may make one or more bids not inconsistent with this order, in the alternative, or otherwise.

Further ordered that the aforesaid property both real and personal be sold free and clear of all liens and demands thereon, including a certain alleged mortgage made by the defendant corporation to the Central Union Trust Company of New York, as Trustee, dated October 1st, 1920; also a certain alleged mortgage bearing date the 18th day of October, 1920; recorded in the Bridgeport Land Records in Book 469 on Page 327, on the 22nd day of October, 1920, unto the New Idria Quicksilver Mining Company, a corporation organized and existing under the laws of the State of Wyoming, and G. W. McNear, Inc., a corporation organized and existing under the laws of the State of California.

Further ordered that the net proceeds arising from the sale of the said property affected by the said alleged mortgages, shall be held by the Receiver herein, and deposited in a Bank or Trust Company in the City of Providence, in this District, and not paid out or distributed except upon further order of the Court, entered after notice to the said alleged mortgagees or their attorneys, and the lien of all alleged mortgages shall attach thereto, but without prejudice to or limitation upon such power as this Court may have to order the payment for care, preservation, expenses of sale, taxes and administration expenses therefrom.

Further ordered that the defendant corporation and its proper officers be and they hereby are ordered and directed to make, execute and deliver any and all deeds, conveyances or other written instruments necessary to convey title to any or all of the property of the defendant corporation which may be sold hereunder, and it is further

Ordered that the said Receiver be and he hereby is authorized to receive in his discretion in part payment upon the sale of any of the real estate hereunder named and described in Parcel A. a purchase money mortgage or purchase money mortgages executed in due form from the purchaser, and it is further

Ordered that the said real property and assets of the defendant corporation included in parcels A, B and C, shall be sold at the office or at the premises of the defendant corporation in the City of Providence, in the State of Rhode Island, on Tuesday, the 10th day of April, 1923, at 10 o'clock A. M., on that day, without further notice by the Court.

The publication hereof, shall be made in at least one newspaper in the cities of New York, N. Y., and Providence, Rhode Island, to be selected by the Receivers and also in such trade papers and newspapers and such other cities as they may in their judgment deem advisable, and such publications to occur at least once a week for four successive weeks, and also on the date of the sale.

This order, shall be subject to the approval of the District Court of the United States for the Southern District of New York.

After the bids shall have been received, at such auction sale, the Receiver shall submit such bids, together with his recommendations thereon, to the Court.

The decree of confirmation of sale or sales shall contain appropriate provisions directing the Receiver and the defendant to execute and deliver such instruments and to do such acts as may be necessary to vest in the successful bidder or bidders, or his or their nominees, the respective rights, titles and interests of the Receivers and of the defendant in and to the property and assets purchased by the successful bidder or bidders upon compliance by such bidder or bidders with the terms of the decree of confirmation. Any purchaser may apply to this Court at the time of the said Receiver's report above provided for such further order or orders in connection with the said purchase by him, as may be just and equitable.

This order is without prejudice to any lien which Messrs. Waterman & Greenlaw Attorneys at Law, may have and which shall attach to the proceeds of said sale.

A copy of this order shall be mailed to each known creditor of the defendant at least fourteen (14) days prior to the time of sale.

The amount of any deposit paid by any purchaser, hereunder shall be returned to said purchaser, upon failure of the Receiver to tender marketable title of the Receiver and defendant to the property sold to such purchaser.

ARTHUR L. BROWN,  
U. S. D. J.

The said sale is to be conducted by G. L. & H. J. Gross and Joseph Feldstein, licensed auctioneers.

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Atlanta Rates	Regular Switching
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A rich and stimulating volume it is, valuable to the investor, of daily use to the business man, and exceedingly helpful to student and educator. In thoughtfully compiled records like this is much of the meat of history; and truly may it be said of this one that it is a book, not only to be tasted, but to be "chewed, swallowed and digested."

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**FOR SALE—The most desirable location in Charleston, S. C., for Wholesaler or Manufacturer—**

Property has 126 feet frontage on Meeting street, the main artery of city. 200 feet depth, abutting on main tracks of Southern Railway. Within two blocks of very center of city. Admirably well suited for use of Wholesaler or Manufacturer.

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The A. & W. P.—W. Ry. of Alabama and Georgia Railroads traverse a territory rich in material and potential resources. Attractive industrial sites. For information apply:

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### Free Sites for Manufacturing Plant, Cotton Mill Preferred

The Chamber of Commerce of Mocksville, Davie County, N. C., offers 10 acres free, 40 acres adjoining at \$50.00 per acre, 150 acres available in suburbs of city on rail road, ideal location. Other sites available for all kinds of enterprises, large or small. Electric power available. Healthy climate. Tax adjustments. Correspondence solicited.

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A thoroughly modern glass plant, 42 ton capacity, splendidly located for distribution and favorable freight rates. Want experienced man in glass manufacturing with some capital to invest. Local capitalists will finance behind right man. Must have proven business ability and be of unquestioned integrity. A very unusual opportunity.

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#### Fully Equipped Manufacturing Plant

Making an established line of plows, harrows, cultivators, etc. Located in Southwestern Ohio. Two railroad sidings, 85,000 sq. ft. floor space. 3 1/2 acres land. Brick buildings. Will sell plant and business separately.

**The Long & Allstatter Co., Hamilton, Ohio**

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Ocean-going steam tug for A-1 schooners 400 to 600 M ft. capacity.

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Thirty-five to forty ton road Locomotive Standard Gauge. Must be in good condition subject to Hunt & Co. Inspection.

**OSCEOLA CYPRESS COMPANY**  
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### WANTED

One 30 ton guy derrick, 100' to 115' mast, 90' to 100' boom, bull wheel. One steel Double Drum Hoist with swinging attachment. Two 125 H. P. Boilers, 80 to 100 pound pressure, steel case, or one 250 H. P. Boiler. 400 to 500 tons of 60 lb. relay rails, spicers and angle bars. 1 steam shovel—1/2 to 1 yard capacity. One 30 Ton Stiff Leg, 10 feet to 15 feet lift.

Any of the above slightly used machinery in good order and subject to inspection, quote price immediately.

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### WANTED

3—Water Tube Boilers, 400 to 500 H.P. each—state make, age, pressure.  
1—1000 KW Turbo Generator with Condenser, Switchboard, Pumps—give full descriptions.

Address A-292  
Care of Manufacturers Record Baltimore, Md.

### WANTED

Steel building, suitable for machine shop, about 60' wide, 130' long, 20' high (curb to eave). Send description, price, and location.

**FLORIDA MACHINE WORKS**  
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**\$20,000 HEAVY DUTY STEAM PUMP-  
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Capacity 1500 G. P. M. against 125 lbs. head  
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**DIRECT CONNECTED UNITS**

**Direct Current**

- 1—85 K.W., 250 volt Crocker-Wheeler Generator and Erie  
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- 1—75 K.W., 500 volt Burke Generator and 2200 volt A.C.  
Motor.
- 1—150 K.W., 250 volt Crocker-Wheeler, 200 RPM. without  
engine.
- 1—200 K.W., 250 volt 200 RPM. General Electric Generator  
and Erico Ball Engine.

**GENERATORS—BELTED**

- 1—200 K.W., Bullock, 220-250 volt, D.C., 450 RPM, 3  
bearing.

**ENGINES**

- 1—12 x 16 Buckeye.
- 1—16½ x 30 Buckeye.
- 12 & 21 x 27 Buckeye.
- 1—24 x 42 Fulton (Corliss).
- 13 & 22½ x 30 Buckeye.
- 23 & 46 x 42 Weatherhill

**BOILERS**

- 1—400 H. P. B. & W.

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**GOVERNMENT SURPLUS  
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**GENERAL ELECTRIC 6 KW. (300-20 Watt Lamps)  
Electric Generators, 125 Volts, Direct Connected  
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Power Gasoline engine, 325 rpm, good as  
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All motors guaranteed to be in good  
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150—KW, 2300-V, 3-P, 60-C,  
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125 lbs. pressure, 260 speed, heavy Duty  
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1—350 H. P., Heine, water tube boiler, 189 lbs. pressure  
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## GENERATING UNIT FOR SALE

1—625 Kva. 70% P. P., Allis-Chalmers, Bullock type, 3 phase, 60  
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direct connected to a 24 x 42 Allis-Chalmers Simple, heavy duty,  
non-condensing, Corliss Engine. All good condition. Immediate  
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Established 37 Years

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2500 H.P. 3600 RPM  
2650 H.P. 3600 RPM  
3000 H.P. 3600 RPM

**TURBINE STEAM PUMPS**

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1—600 KW, General Electric, 2300 Volt, 3-Phase, 60-Cycle, 3600 RPM, 175 Lbs. Steam Pressure, complete with switchboard and condenser.  
1—35 KW, General Electric, 200 Lbs. Steam Pressure, 120 volt DC Generator.

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2—83.3 Amp. 120 Volt DC Allis-Chalmers, direct connected to 6x6 Upright steam engines.

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1—35 KW, General Electric, 120 Volt DC Generator, 50 HP, 3-Phase, 60-Cycles, 2200 volt motor.  
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2—Erie City 250 HP Horiz. water tube, 150 Lbs. pressure.  
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1—Eigemoor 250 HP Horiz. water tube, 223 Lbs. pressure.  
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2—Worthington Triple Expansion Duplex Steam Pumps, Size 13x21x34x14½x24, with surface condenser.  
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2—Worthington Duplex Steam, Size 4¼x2¼x4.  
2—Canton-Hughes Duplex Pot Valve Boiler Feed Pumps, Size 10x6x10.  
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1—Rogers-Higgins Fuel Oil Pumping Outfit, consisting of Two 5¼x3½x5 Worthington Duplex Steam Pumps with pressure governor and oil heater.

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1—10x29 Horizontal, Capacity 17,000 Gallons.  
2—10x35 Horizontal, Capacity 20,000 Gallons.

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**USED BOILERS****Wide Range of Sizes  
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8000 H.P. of Edge Moor  
3600 H.P. of B. & W.  
2000 H.P. of Heine  
6000 H.P. of Stirling  
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*We are also manufacturers of  
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For immediate Shipment

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**BOILERS**

1—500 H. P. Water Tube Boiler.  
2—250 H. P. Water Tube Boilers.

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2—200 HP, 450 RPM, 3 Ph, 440 V. G.E. New.  
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10—50 HP, All Speeds, 3 Ph, 220 or 440 volts.  
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Many smaller sizes, 25 and 60 Cy, A.C. and D.C.  
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- 1—300 K.W. Triumph, 240 volts Generator, direct connected to 15x28x30 Hamilton Corliss Engine.
- 1—250 K.W. General Electric, 250 volts Generator, direct connected to 26x18 Ball & Wood Engine.
- 1—250 K.W. Crocker-Wheeler, 275 volts Generator, direct connected to Erie-Ball Automatic Engine.
- 1—200 K.W. Westinghouse, 250 volts Generator, direct connected to 21x20 Skinner Engine.
- 1—150 K.W. Allis-Chalmers, 125 volts Generator, direct connected to 18x18 Skinner Engine.
- 1—150 K.W. Crocker-Wheeler, 250 volts Generator, direct connected to 18x18 Skinner Engine.
- 2—100 K.W. each Western Electric, 125 volts Generators, direct connected to 15x15 Skinner Engine.
- 1—75 K.W. Ft. Wayne, 250 volts Generator, direct connected to 14x16 Skinner Automatic Engine.
- 1—75 K.W. General Electric, 250 volts Generator, direct connected to 14x14 Ideal Engine.
- 1—75 K.W. General Electric, 125 volts Generator, direct connected to G.E.-Curtis 2400 RPM Turbine.
- 2—50 K.W. each Triumph, 125 volts Generators, direct connected to 11x12 Skinner Engine.
- 1—40 K.W. Triumph, 125 volts Generator, direct connected to 9x12 Skinner Automatic Engine.
- 1—25 K.W. Western Electric, 125 volts Generator, direct connected to 8x10 Skinner Engine.
- 1—22½ K.W. Allis-Chalmers, 120 volts, belted type.
- 1—17½ K.W. Triumph, 125 volts, belted type.
- 1—17½ K.W. Triumph, 125 volts Generator, direct connected to Troy Vertical Automatic Engine.

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Belted and Direct Connected, 3 Phase, 60 Cycles.

- 1—5000 K.W. Allis-Chalmers, 2300 volts Turbo-Generator set, Complete.
- 1—1200 K.W. General Electric, 250 volt Generator, direct connected to Filer & Stowell, cross compound, Corliss Engine.
- 2—645 KVA. each Bullock, 220 volts Generators, direct connected to 24x42 Allis-Chalmers Corliss Engines.
- 1—625 KVA. Westinghouse, 2300 volts Generator, direct connected to 18x38x30 Hamilton Corliss Engine.
- 1—600 K.W. General Electric, 250 volt Generator, direct connected to an 18x42x36 Filer & Stowell Corliss Engine.
- 1—500 KVA. Bullock, 220 volts Generator, direct connected to 22x42 Allis-Chalmers Simple Corliss Engine.

- 1—350 K.W. Westinghouse, 220 volt Generator, direct connected to a 26x42 Murray Corliss Engine.
- 1—300 K.W. General Electric, 2300 volt Turbo Generator Set, condensing.
- 1—250 K.W. Allis-Chalmers, 2300 volts belted type Generator.
- 1—200 K.W. each Bullock, 240/480 volts Alternator, direct connected to 300 H.P. De Laval Turbine.
- 1—125 KVA. Ft. Wayne, 2300 volts Generator, direct connected to 15x16 Erie-Ball Automatic Engine.
- 1—100 K.W. General Electric, 220 volt, 3600 RPM Turbo Generator Set, with condenser and accessories.
- 1—94 KVA. General Electric, 240 volts belted type Generator.
- 1—80 KVA. Allis-Chalmers, 240 volts Generator, direct connected to 13x12 Harrisburg-Fleming Automatic Engine.
- 1—62½ K.W. Lincoln, 240 volts Generator, direct connected to 11x12 Chandler & Taylor Automatic Engine.

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- 6—1040 H.P. Edgemore, ASME code, 200 lb. pressure.
- 2—400 H.P. Edgemore Boilers, 175 lb. pressure.
- 3—250 H.P. Franklin, Heine type, 150 lb. pressure.
- 2—207 H.P. Geary, high pressure.
- 2—175 H.P. Atlas, high pressure.
- 2—175 H.P. 78x18 H.R.T., high pressure.
- 2—150 H.P. 72x18 H.R.T., high pressure.
- 2—125 H.P. 72x16 H.R.T., high pressure.
- 3—100 H.P. 66x16 H.R.T., high pressure.
- 2—100 H.P. 66x16 H.R.T., Standard.
- 1—80 H.P. 60x16 H.R.T., high pressure.
- 1—70 H.P. 54x16 H.R.T., high pressure.
- 1—60 H.P. 54x14 H.R.T., high pressure.
- 2—60 H.P. Fire Box.
- 2—25 H.P. 42x95 new Vertical, 125 lb. pressure.
- 1—15 H.P. 36x83 new Vertical, 100 lb. pressure.
- 1—10 H.P. 30x83 new Vertical, 100 lb. pressure.

## ROTARY CONVERTERS

- 3—300 K.W. Westinghouse, 250 volt D.C., 3 phase, 60 cycle, 2300 volts.
- 2—200 K.W. Westinghouse, 250 volt D.C., 3 phase, 60 cycle, 3800 or 2300 volts.
- 2—150 K.W. Western Electric, 250 volt D.C., 3 phase, 60 cycle, 2300 volts.

## STEAM ENGINES

- 1—26x18 Vilter left hand Corliss.

- 1—17x34x48 Hamilton Cross Compound Corliss, heavy duty, designed for rope drive.
- 1—22x42 Hamilton heavy duty Corliss.
- 3—18x36 Allis-Chalmers, heavy duty, Corliss.
- 1—16x16 Lane & Bodley Slide Valve.
- 1—14x18 Skinner Automatic Engine.
- 1—13x16 Erie City Automatic.
- 1—12x24 Buckeye Automatic.
- 1—11x18 H. S. & G. Slide Valve.
- 1—11x16 Atlas Automatic.
- 1—11x15 Erie Slide Valve.
- 1—10x12 Valley Iron Works Automatic.
- 1—9x12 Brownell Slide Valve.
- 1—7x 8 new Erie City Automatic.
- 1—7x 8 Troy Slide Valve.
- 2—6x 9 Nagel Slide Valve.
- 1—6x 7 Horizontal Automatic.

## D. C. MOTORS

No. HP.	Make	Volts	RPM
1—35 New	Fairbanks-Morse	220	600
2—30 Used	Jantz & Leist	220	650
1—25 Rebuilt	Akron (Imperial)	220	750
1—20 Rebuilt	Triumph	220	965
1—15 Rebuilt	Western Electric	230	1700
1—15 Rebuilt	Minneapolis	110	350
1—7½ Rebuilt	Electric Dynamic	220	550/1100
1—5 Rebuilt	General Electric	115	1100
2—4 Rebuilt	Triumph	110	1025

## A. C. MOTORS

3 Phase, 60 Cycles, Squirrel Cage and Slip Ring.			
1—5 Used	Wagner	220	1720
1—7½ Used	Wesche	220	1800
2—7½ Used	Allis-Chalmers	220	1200
6—7½ New	General Elec.	220	1800
3—10 New	General Elec.	220	1200
1—15 New	Fairbanks-Morse	440	1800
1—15 Used	Fairbanks-Morse	220	1800
2—15 Used	Allis-Chalmers	220	1200
5—20 New	General Electric	220	1200
2—25 Used	General Electric	220	1200
1—30 Used	Allis-Chalmers	220	900
1—40 Used	Triumph	220	1800
4—40 New	General Electric	220	1200
3—50 New	General Electric	220	900
3—75 New	G.E. (Slip Ring)	220	900
3—100 New	G.E. (Slip Ring)	220	900
1—125 Used	G.E. Synchronous	220	1200
2—150 New	G.E. (Slip Ring)	440	720
1—200 Used	General Electric	2200	514
1—250 Used	Allis-Chalmers (Slip Ring)	440	590
1—350 Used	Allis-Chalmers (Slip Ring)	2200	514
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- 1—Winton 200 H.P. Fuel Diesel Type Engine.
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- 1—Complete Switchboard for 1-135 K.W. 125 volt generator
- 1—15 H.P. Mianus 2-cylinder improved Diesel Oil Engine direct connected to General Electric Co. 125 volt, 12 K.W. compound wound, Form A, Type RC-32, Amp. 96, Speed 550, Generator suitable for operating the following:—
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- 1—200 HP., used Crocker-W., 220 volt, 600 r.p.m.
- 1—100 HP., used wh., CCL, 440 volt, 690 r.p.m.
- 1—40 HP., used Wagner BW, 440 volt, 850 r.p.m.
- 1—30 HP., used Wagner BP, 220 volt, 1170 r.p.m.
- 1—25 HP., used Wagner BP, 220 volt, 1140 r.p.m.
- 1—20 HP., used G. E. KP, 220 volt, 1800 r.p.m.
- 1—20 HP., used G. E., Form "L," 550 volt, 1800 r.p.m.
- 1—20 HP., new G. E., KT, 220 volt, 1800 r.p.m.
- 1—15 HP., used Triumph, 220 volt, 1750 r.p.m.
- 1—10 HP., used G. E., KT, 220, 600 r.p.m.
- 3—10 HP., used G. E., KT, 220, 900 r.p.m.
- 1—10 HP., new Crawford 220 volt, 1200 r.p.m.

**2 PHASE, 60 CYCLE**

- 1—150 HP., used, G. E., K, 220 volt, 600 r.p.m.
- 1—75 HP., used Wh., C, 220 volt, 1750 r.p.m.
- 1—40 HP., used Wh., CS, 220 volt, 1140 r.p.m.
- 1—40 HP., used Wh., C, 220 volt, 850 r.p.m.
- 2—30 HP., used Howell, 220, 1200 r.p.m.
- 1—25 HP., used Wh., CS, 220 volt, 870 r.p.m.
- 1—25 HP., used Wh., CS, 220, 1160 r.p.m.
- 1—25 HP., used Western Elec., 220 volt, 1165 r.p.m.
- 1—25 HP., used R. & M., K, 220 volt, 1150 r.p.m.
- 1—20 HP., used G. E., KQ, 220 volt, 1150 r.p.m.
- 1—20 HP., used G. E., KQ, 220 volt, 1750 r.p.m.
- 1—20 HP., used Wh., C, 440 volt, 1200 r.p.m.
- 1—20 HP., used Ideal, 220 volt, 690 r.p.m.
- 1—15 HP., used Howell, 220 volt, 1800 r.p.m.
- 1—10 HP., used Western Elec., KQ, 220 volt, 1800 r.p.m.
- 1—7½ HP., used Allis-Chalmers, 220 volt, 860 r.p.m.

ABOVE MOTORS ARE ALL 40 DEGREE, C.  
ALL USED MOTORS REBUILT AND GUARANTEED.

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1086	Back geared Horizontal Boring Mill
1054	Cone head back geared screw cutting Lathe
1090	Back gear Upright Drill
1055	Plain Milling Machine
1023	Hand feed tool grinder
1078	16 in. Power Hack Saw, equipped with Motor
1130	Four sides Moulder.

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Government plant a short  
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Rods—100 tons 7/8" Round  
Rods, 14' to 22' lengths.

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- 1500 Gallon 20 x 12 x 16 Buffalo Duplex, six hose valves.
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Established 1900

## ENGINES & PUMPS FOR SALE

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Above equipment used two years. In good condition. Prices reasonable.

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**CORNING GLASS WORKS**  
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15 miles 8" 28 pound line pipe 60c. foot; 5 miles 6" line pipe 40c. foot; 300,000 feet 1" pipe 4c. foot; all f.o.b. cars Beaumont, Texas.

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One 150 H.P. Fishkill Corliss Engine  
Two boilers of 100 H.P. each together with all fittings. Last inspector's report gave 125 pounds working pressure. Big sacrifice for quick sale.

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Located on

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- 1—Clayton Duplex Steam Driven Air Compressor, duplex steam and two stage air cylinders, dial steam cylinder 10", low pressure air cylinder 16 1/2", high pressure air cylinder 10", stroke 10"; capacity 425 cu. ft.
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- 1—B. & W., 284 H.P., Water Tube; 150 lbs. pres.
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- 14—72" x 18" Horizontal Tubular; 100 lbs. pres.
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- 1—16" x 8 1/2" x 12" Duplex Steam.
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- 1—10" x 6" x 10" Duplex Steam.
- 3—6" x 4" x 6" Duplex Steam.
- 4—5 1/4" x 3 1/2" x 5" Duplex Steam.
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35th & Iron Streets  
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These Hoists and Derricks are standard late models, manufactured by The American Hoist & Derrick Co., St. Paul, Minn. They are almost new, and every one is GUARANTEED to be in first-class running order.

The Hoists have two drums and swingers, and are complete with Starting and Control Equipment. Either side or bank control, and rated 6000 pounds single line on each hoisting drum. Slewing rope 36 ft. per minute, and hoisting rope speed 160 ft. per minute. The MOTORS are Otis 37 H.P. A.C., 60 cycle, 3 phase, 440 volt, intermittent duty slip-ring induction type and, if desired, may be changed to suit the individual current requirements of purchasers at cost.

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Mast.....16 in. square, 40 ft. high.  
Boom.....Made of (2) 14 in. sq. timber 48 ft. long spliced to lengths of 80 ft. with (2)  $\frac{1}{2}$  in. and (2)  $1\frac{1}{2}$  in. truss rods.  
Stiff Legs. 14 in. sq., 60 ft. long, or 16 in. sq., 46 ft., 50 ft. or 55 ft. long, will furnish either length desired, capacity 5 to 10 tons. Bull wheel 16 ft. dia. Principal sheaves 16 in. dia. and 14 in. single blocks.  
The Cable which was formerly used will be given with each purchase of a Hoist and Derrick.

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Two stage, Class VBFF, 100 lbs. pressure, 150 speed. PERFECT ORDER. Bargain.

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3—42" Emery Mills, 2-Jaw Crushers, 2-Bolting Reels, 1-Sturtevant Roller Mill, 2-Steam Engines, 1-Boller.

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18 Tons  $\frac{7}{8}$ " Round Tank Bands, 10' in diameter. Good threads.

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66 ft. Ing.-Rand high pressure, steam driven. All fittings.  
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Six Ton Caterpillar Tractors.  
They will pull your logs anywhere.

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one 10 ton and one 14 ton Porter Locomotive, four drivers, saddle tank, 44" gauge. Good operating condition.

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One Keystone Shovel Excavator Model 4 with skimmer scoop 1/2-yd capacity with all tools and fittings, also No. 2 Ditcher Scoop and attachments. Same has been used only a few weeks and is good as new. Address inquiry

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If you wish to keep posted on the progress of the South, read the

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Price \$6.50 a year Six months for \$3.50

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- One No. 3 Keystone Shovel \$2500.
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### Standard Gauge Saddle Tank

- 4—13 x 18 4 wh. American
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Located in the Carolinas and Georgia

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  - 1 Two cu. yd. steel dump car.
- All the above machinery has had light use and is for all practical purposes as good as new.

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- 1—14x24 Baldwin Saddle Tank Standard Gauge Locomotive.
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- 50—Gondolas, 80,000 lb. capacity.
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Can also ship from stock all kind cars in small lots, both passenger and freight.

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Here's your chance to get a real asphalt plant at a price that is right. Better get in touch with us quickly.

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All in good working condition.

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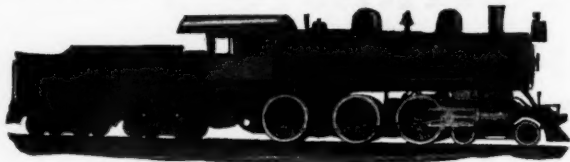
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Weights 22 tons. Has had little service.

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92 ton Ten Wheel type; 21"x28": 190 lbs. Pressure.

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Narrow and standard gauge; 5 to 100 tons in weight, various types for all classes of service; Rebuilt strictly first-class condition; Immediate shipment from stock.

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400 tons 20 lb.	760 tons 70 lb.
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Complete sidings made up to any R.R. specification—also R.R. ties

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Pavers, mixers, rollers, shovels, cranes, crushers, etc.

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Let us know your needs. We may have material in stock near you.

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New Frogs and Switches at low prices.

**1000 TONS**  
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Also NEW SPLICES, FROGS and SWITCHES at less than mill price.

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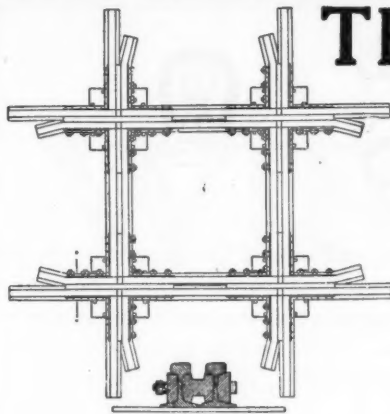
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**LOCOMOTIVE**—Brooks Switcher (0-6-0 class), cylinders 18 x 24", Diameter driving wheels exclusive tires 44", Weight working order 50 tons, new tires, air bell ringer, Franklin air firedoor, first class condition. Best bargain on market this type and weight.

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### ROAD ROLLERS

2 Iroquois, 2½-ton Tandem. 1 Iroquois, 7-ton Tandem.  
4 Pioneer, 5-ton Tandem.

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1 Thew No. 0 Traction, ⅝ yd. dipper.

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15 miles 40 lb. section, North Carolina delivery  
3 miles 25 lb. section, North Carolina delivery  
4 miles 56 lb. section, South Carolina delivery  
4 miles 56 lb. section, Virginia delivery  
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All in first-class condition. Ready for prompt shipment. Also other weights. Write us for prices.

**H. M. FOSTER COMPANY**

Continental Building, Baltimore, Md.

## FLAT CARS BOX CARS

800 flat cars, standard gauge, 36 to 40 ft. capacity 40,000, 50,000, 60,000 and 80,000 lbs.  
35 gondola cars 60,000 and 80,000 lbs. capacity 25' 7" to 36' long, one and four board high, flat and hopper bottom.  
15 box cars, standard gauge, 36 ft., 50,000 lbs. capacity.

All equipped with air and hand brakes.

**HENRY A. HITNER'S SONS CO.**  
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40 Standard and 36" Gauge Modern Direct-connected locomotives, in all types and weights from 8 to 75 tons.  
10 Standard and 36" Gauge Geared Locomotives, all weights.  
15 Steam Shovels and Locomotive Cranes of different types and sizes.  
3000 tons Relaying rails, all sizes, on our Birmingham yards.  
100 sets 35 and 40-lb. Frogs and Switches; good as new.

Many other articles in this line.  
Your inquiries will receive careful and prompt attention.

**BIRMINGHAM RAIL & LOCOMOTIVE CO.**  
BIRMINGHAM, ALA.

## KILBY FROG & SWITCH COMPANY

BIRMINGHAM, ALABAMA

Manufacturers

FROGS, SWITCHES, CROSSINGS, ETC.

## L. B. FOSTER COMPANY

Frogs Switches Track Accessories **RAILS** New Relaying All Sizes

35,000 Tons Stock. Immediate Shipment

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## FOR SALE or RENT

### Steam Shovels

6—Type "B" Erie, ¾-yd. dippers, traction wheels, shop numbers 33, 42, 206, 312, 337 and 914.

1—Model "O" Thew, ½-yard dipper, long stick, trench dipper.

3—Model 28 Marions, ⅝ yd. dipper, shop Nos. 3134, 3137 and 3229.

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1—Model 70 Marion, 2½ yard dipper, No. 2693.

### 12-yard Standard Gauge Cars

20—26' bed Western air-dump Cars.

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4—10x16" H. K. Porter 18-ton.

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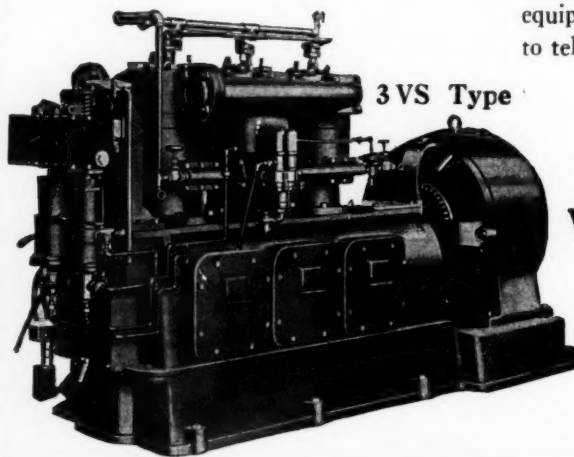
**H. Kleinhans Co.**

Union Arcade - Pittsburgh, Pa.

# WESTINGHOUSE — NATIONAL AIR COMPRESSORS



**Have You  
Watched  
One Work?**



If you have watched a Westinghouse National Compressor in operation, delivering a dependable supply of compressed air, running only when needed and shutting down to a full stop when the demand is met—saving power at every turn—you know why it makes an ideal machine for any class of industrial service.

Westinghouse National Compressors save power because they are equipped with the famous HP Automatic Control. We will be glad to tell you more about this important distinctive feature.

Westinghouse-National Air Compressors are furnished in all sizes from 11 to 550 cu. ft. piston displacement; stationary and portable types; A.C. or D.C. motor. Especially adapted for factories, foundries, garages, office buildings, railway shops and yards, printing plants, etc. Literature on request.

**Westinghouse Traction Brake Company**  
General Offices and Works: Wilmerding, Pa.

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## INDUSTRIAL RAILWAY EQUIPMENT For Every Hauling Purpose

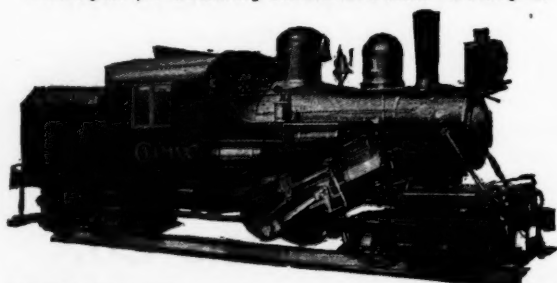
Portable Track, Switches, Frogs and Turntables.  
Roadbuilders' Trucks and Batch Boxes V-shaped Two-Way  
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Sales Offices: New York, Pittsburgh, Chicago, Detroit,  
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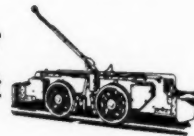
**We are building Locomotives from  
12 to 90 Tons for all classes of service**  
Investigate for Switching Industrial Plants—Catalog K.



**CLIMAX MFG. CO.** Corry, Pa., U. S. A.  
SOUTHERN AGENTS: Higgins & Wormington, New Orleans



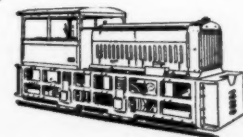
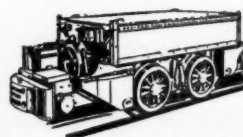
**A Type for  
every project**



**A Size for  
every job**

## LOCOMOTIVES Gasoline Storage Battery Trolley Combination

The Thousands of Whitcomb Locomotives  
in successful operation speaks for the  
thorouness of their design and construction.



Write for Bulletins covering the Type you are  
interested in.

**Geo. D. Whitcomb Company**  
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Iron Hoisting, Crucible Cast Steel, Plow Steel, Marlin Clad, Tiller Ropes, Wire Rope Tramways, Ship Hawsers, Ship Rigging and Running Ropes. Bright and Galvanized Ropes of all Regular and Special Construction.

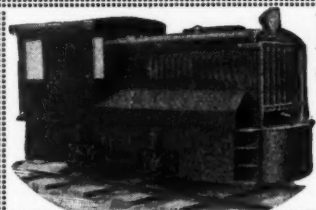
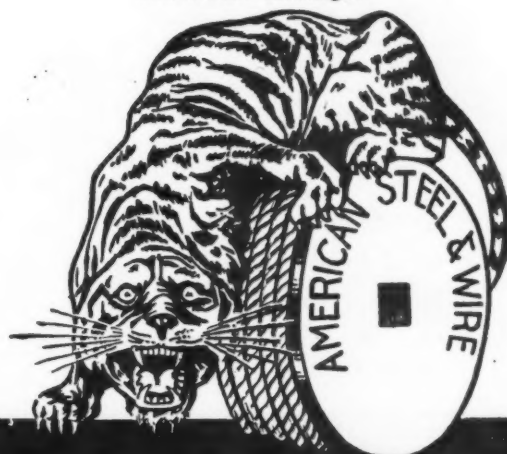
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Complete Stock  
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**OUR WAREHOUSES**

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**PLYMOUTH**

*Gasoline Locomotives*  
For all Industrial Haulage

Ask for Bulletins

THE FATE-ROOT-HEATH CO.  
Plymouth, Ohio, U. S. A.

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THE ATLAS CAR & MANUFACTURING CO.  
Cleveland, Ohio



**AIR COMPRESSORS**  
**CENTRIFUGAL PUMPS**

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Pennsylvania Pump & Compressor Company  
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MINSTER  
INDUSTRIAL  
LOCOMOTIVES



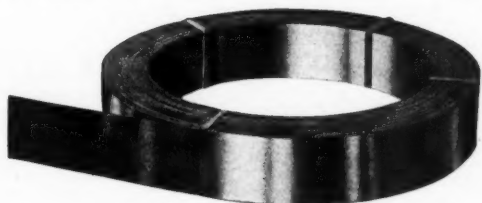
THERE IS  
A SIZE FOR  
YOUR PURPOSE

The INDUSTRIAL EQUIPMENT COMPANY

OHIO STREET, MINSTER, OHIO, U. S. A.

EASTERN and EXPORT DEPT., THE HERBERT CRAPSTER CO., Inc.  
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Straight Lengths or Coils, Round or Square Edges  
High or Low Carbon. All Finishes

JOHN A. ROEBLING'S SONS COMPANY  
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**KEATOR SAFETY CLIP**

Guaranteed to take the place of any four  
common clips. Will not cut the wire  
rope or permit it to slip.

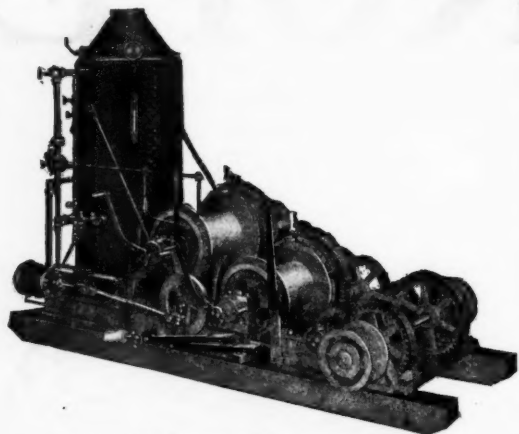
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**MAL-GRA CASTINGS COMPANY**

Manufacturers of high grade malleable castings  
CAMBRIDGE CITY, INDIANA

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## STEAM-ELECTRIC-GASOLINE



DERRICK HOIST WITH BOOM SWINGER

We build hoists for every type of work.  
Built with **Strength and Speed.**

Philadelphia, Pittsburgh, Chicago, Los Angeles  
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## Stroudsburg = Quality

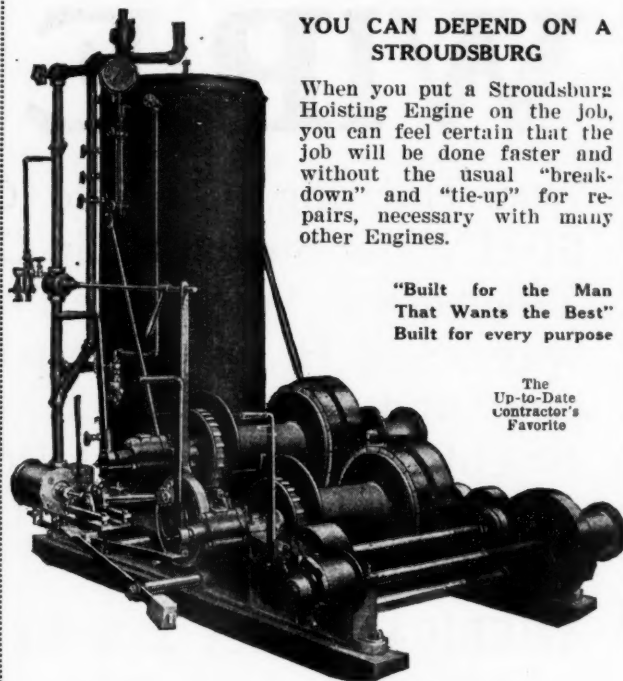
We Standardized the 125 Lbs. Pressure Hoisting Engine

**YOU CAN DEPEND ON A  
STROUDSBURG**

When you put a Stroudsburg Hoisting Engine on the job, you can feel certain that the job will be done faster and without the usual "break-down" and "tie-up" for repairs, necessary with many other Engines.

"Built for the Man  
That Wants the Best"  
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The  
Up-to-Date  
Contractor's  
Favorite



**STROUDSBURG ENGINE WORKS**

Office and Works: No. 64 N. 3d St., Stroudsburg, Pa.

## BAY CITY LAND DREDGES



Capacities— $\frac{1}{2}$  to  $1\frac{1}{2}$  cu. yds.

roots, and cut-over lands. B. C. Walking and Crawler Dredges can get over soft, marshy or rough ground where others fail. The weight is distributed. Write for Catalog D.

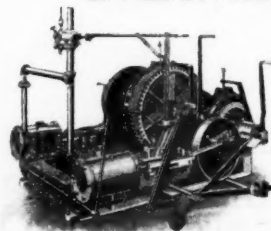
**BAY CITY DREDGE WORKS** 2600 Center Ave. BAY CITY, MICH.  
Builders of the Bay City Crane-Excavator

### Span the Ditch

(an advantage in new work and a necessity for cleaning out old ditches)  
Caterpillar, Walking, Track or Floating type. Mounted to fit the job.

Bay City Dredges have made a name for themselves in the South on account of ability to handle *big yardage* at *lowest cost* among stumps,

TRADE MARK  
**MUNDY**  
ESTABLISHED 1869



**CONCRETE  
TOWER  
HOIST**



**WRITE FOR  
BULLETIN**

**J. S. MUNDY HOISTING ENGINE CO.**  
Newark, New Jersey

Patented crawler base  
provides unequalled  
mobility; operated by  
one man.



**The shovel with  
only one motor**

No racks, gears or separate crowding motors; more power at the dipper lip; full power for crowding.

**Northwest Engineering Co.**  
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**NORTHWEST CRANE  
DRAGLINE  
SHOVEL**

## Turn Waste Minutes Into Money

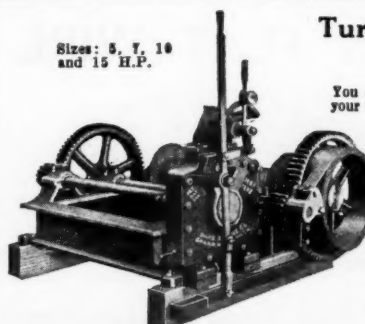
You can save time, labor and fuel on your derrick work by installing

**DAKE SWINGING  
GEARS**

One lever starts, stops, and reverses it, and when the throttle is closed the brake is automatically applied to the drum.

The boom is always under perfect control, and the load may be quickly and accurately spotted.

Swinging the boom without the use of the main hoisting engine saves fuel.



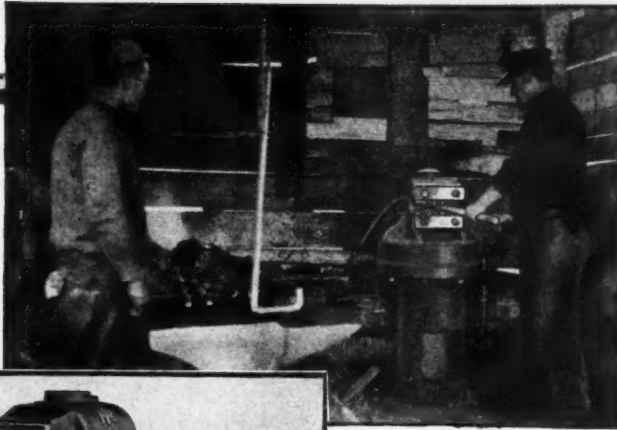
Sizes: 5, 7, 10  
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Send for catalog and full particulars.

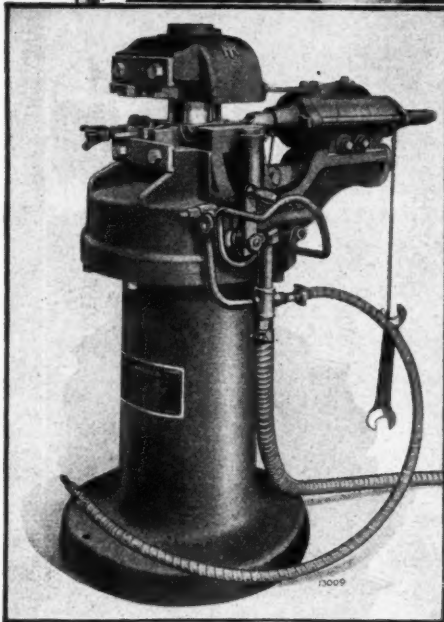
**DAKE ENGINE COMPANY, GRAND HAVEN  
MICHIGAN**

Agents—New York: A. Judson Brown & Co., Inc., 59 Pearl St. Chicago: J. E. Chisholm, 810 Monmouth Bldg. St. Louis: Wm. C. Johnson & Sons Machinery Co. San Francisco: Harron, Rickard & McCone.





**Saving \$36 per day**  
in blacksmith costs  
**Increasing 100%**  
the drilling speed with  
**"Leyner Sharpener"**



These figures are furnished by Mr. Geo. J. Atwell, President of the George J. Atwell Co., Inc., one of New York's most prominent contractors.

The particular job referred to is excavating the foundation for Hotel Commonwealth, which will be the world's largest hotel.

This company has very recently purchased another "Leyner" No. 33 Sharpener to be used on the foundation work for Saks Department Store, Fifth Avenue and Forty-ninth Street, New York City.

Are you getting the benefit of such savings and improvements?

**Request Bulletin No. 4322 which completely describes "Leyner" Sharpeners.**

**Ingersoll-Rand Co., 11 Broadway, New York**

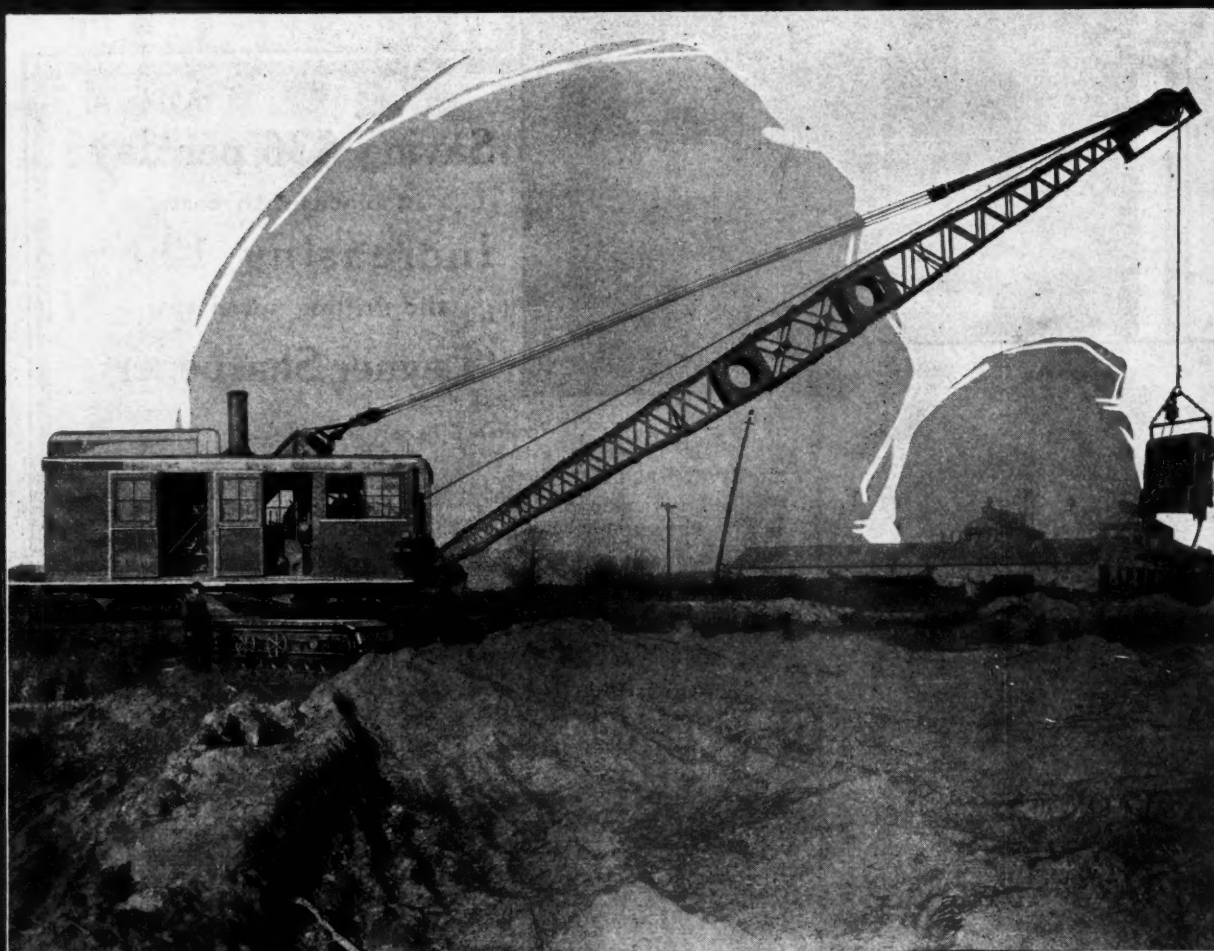
*"Leyner" No. 33 Drill  
Steel Sharpener*

117-LDS



**Ingersoll-Rand**

R-439



## AND NOW A NO. 7 AUSTIN ALL-STEAM DRAGLINE

### AUSTIN DRAGLINE CAPACITIES

Model	Equipment	Boom	Bucket
4	Standard	35 ft.	$\frac{1}{2}$ Yd.
	Optional	40 ft.	$\frac{3}{4}$ Yd.
	Optional	30 ft.	$\frac{3}{4}$ Yd.
5	Standard	40 ft.	$\frac{3}{4}$ Yd.
	Optional	45 ft.	$\frac{1}{2}$ Yd.
	Optional	30 ft.	$\frac{1}{2}$ Yd.
6	Standard	42 ft.	1 Yd.
	Optional	55 ft.	$\frac{3}{4}$ Yd.
	Optional	32 ft.	$\frac{1}{4}$ Yd.
7	Standard	50 ft.	$\frac{1}{4}$ Yd.
	Optional	40 ft.	$\frac{1}{2}$ Yd.
	Optional	60 ft.	1 Yd.
	Optional	70 ft.	$\frac{3}{4}$ Yd.
8	Standard	60 ft.	$\frac{1}{2}$ Yd.
	Optional	70 ft.	$\frac{1}{4}$ Yd.
	Optional	80 ft.	1 Yd.
	Optional	50 ft.	2 Yd.
12	Standard	75 ft.	2 Yd.
	Optional	60 ft.	$2\frac{1}{2}$ Yd.
	Optional	85 ft.	$\frac{1}{4}$ Yd.
	Optional	75 ft.	$\frac{1}{2}$ Yd.
16	Standard	85 ft.	$2\frac{1}{2}$ Yd.
	Optional	70 ft.	3 Yd.
	Optional	95 ft.	2 Yd.
20	Standard	100 ft.	3 Yd.
	Optional	90 ft.	4 Yd.
	Optional	110 ft.	$2\frac{1}{2}$ Yd.
24	Standard	125 ft.	4 Yd.
	Optional	110 ft.	5 Yd.
	Optional	140 ft.	3 Yd.



### An All Austin Design-Standardized Dragline

Standardization, the outstanding quality in any machine has placed this No. 7 Austin Dragline in a class by itself.

Featured above is the steam machine equipped with a Scotch Marine Horizontal Type Boiler having a corrugated furnace and an oil burner.

The swinging, digging and hoisting operations are controlled by steam rams through balanced valves.

Smoothness of operation and the extreme flexibility of this dragline insures long life.

The No. 7 can be furnished with steam or gasoline power as desired.

Complete data will be furnished on request. Ask for Bulletin No. 3—seven.

### AUSTIN MACHINERY CORPORATION

3500 DORR STREET, TOLEDO, OHIO

CHICAGO  
BIRMINGHAM  
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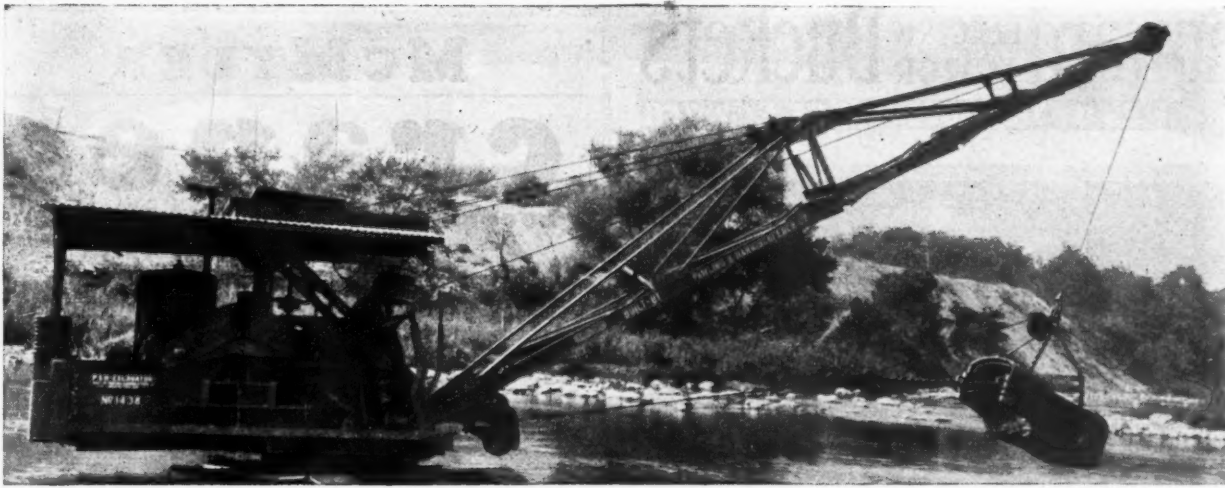
MILWAUKEE  
NEW ORLEANS  
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OMAHA  
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PORTLAND  
SAN FRANCISCO  
WOODSTOCK, ONT.

## DESIGN & PERFORMANCE COUNT





## The P & H Eliminates Coffe-Dams

After climbing down the exceedingly steep banks of the Milwaukee River, this P & H Dragline, belonging to Knowles & Fehr, is digging a six-foot trench across the river, obviating the necessity of building coffer-dams.

### Outstanding Features

- One-man operated.*
- Runs onto flat car under own power.*
- Shafts forged, turned and ground to micrometer size.*
- Heavy duty shafts of chrome maganese steel, specially heat treated.*
- Non-cloggable steel corduroys.*
- Low Bearing Pressure—10 lbs. per square inch.*
- Drums are mounted on independent shafts, insuring center pull on the ropes.*
- Long lead between drums and fair lead insuring long cable life.*
- Fair lead mounted on machine—not on boom.*

The soil conditions were very uncertain, huge boulders being encountered all the way across the rough river bed.

The P & H, with its sure-footed Corduroy Traction, had no trouble in traveling across.

The digging itself was very tough, consisting mostly of boulders and hard pan, but the machine cut through them readily. It is in digging like this that the great reserve power of the gasoline motor on the P & H manifests itself.

Even though you are not in the market for excavators now, it will pay you to become acquainted with P & H equipment. Our Bulletin 57-X will be gladly forwarded on request.

### PAWLING & HARNISCHFEGER CO.

*Established in 1884*

3827 National Avenue

Milwaukee, Wisconsin

#### P & H Offices and Agents.

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DALLAS, TEX.....J. W. Bartholow, 907½ Commerce St.  
HOUSTON, TEX.....R. B. Everett & Co., 3112 Harrisburg Blvd.

MEMPHIS, TENN.....A. C. Miller, 462 Randolph Building.  
JACKSONVILLE, FLA.....M. D. Moody, 409 Masonic Temple Bldg.  
RICHMOND, VA.....Tractor & Mach'ry Sales Co., 1631 W. Broad St.  
NEW ORLEANS, LA....P & H Branch Office: Whitney-Central Bldg.

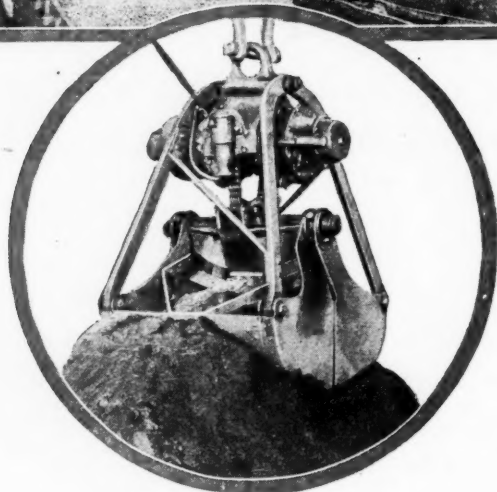
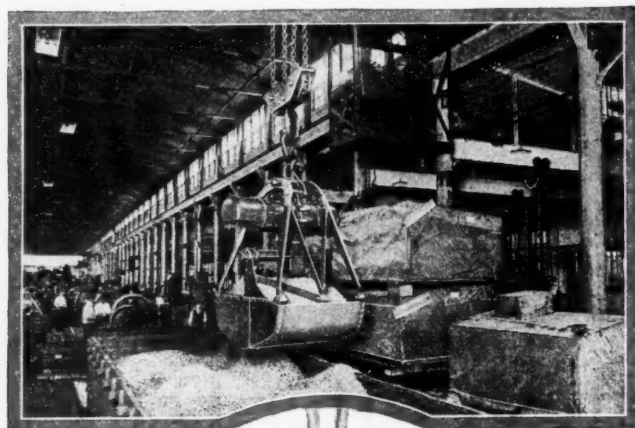
P & H Offices also in NEW YORK, PITTSBURG, PHOENIX, CHICAGO, PHILADELPHIA, DENVER, ST. LOUIS, SALT LAKE CITY, LOS ANGELES, SAN FRANCISCO, SEATTLE, PORTLAND.



# CORDUROY CRANES

# Hayward ELECTRIC MOTOR Buckets

CONTROLLED BY THE MOVEMENT OF A SWITCH



## More Economies From Present Hoists

You can use your cranes and hoists for bucket service—without tying them up to bucket service exclusively.

For a Hayward Electric Motor Bucket can be attached to or detached from any hoist hook in a few seconds' time.

Why not extend the economies of your cranes and hoists? Use them for ordinary hoisting work—for operating a magnet—and, as well, with a Hayward Electric Motor Bucket, for handling coal, ashes, sand, and other bulk materials. Magnet and Electric Motor Bucket are quickly interchanged through the means of a Hayward Cable Coupler.

Catalog 45 will give you complete information. Write for it.

**THE HAYWARD COMPANY**  
50-52 Church Street, New York, N. Y.

Orange Peel  
Clam Shell



Drag Scraper  
Electric Motor

Trade **HAYCO** Mark  
2862-Y

# McMYLER- cranes

Locomotive—Crawler—Traction

Pile Drivers—Car Dumpers  
Equipment for Moving Materials

**THE McMYLER-INTERSTATE CO.**  
CLEVELAND

Sales Offices in All Principal Cities

## INTERSTATE

### The Rugged Construction of O. S. Dependable Cranes

ASSURES  
CONTINUED SERVICE



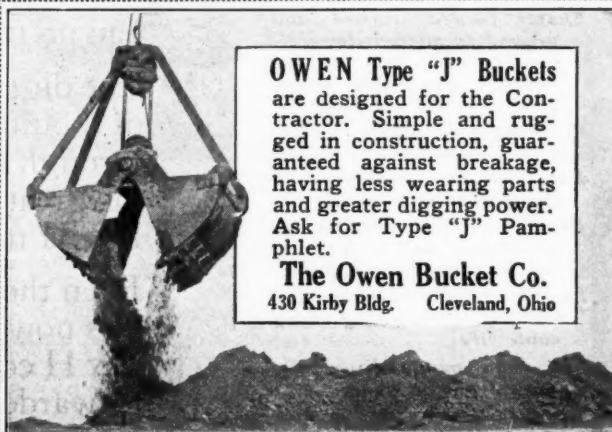
Capacities  
7-to-60-Tons

POWER  
Steam—Gasoline—Electric

**Orton & Steinbrenner Co.**

Offices  
608 So. Dearborn St., Chicago

Shops  
Huntington, Indiana.



**OWEN Type "J" Buckets**  
are designed for the Contractor. Simple and rugged in construction, guaranteed against breakage, having less wearing parts and greater digging power. Ask for Type "J" Pamphlet.

**The Owen Bucket Co.**  
430 Kirby Bldg. Cleveland, Ohio



**Drive  
Your Crane  
To Work!**

The Byers "TruckKraNE" can be driven to work just like any automobile. Saves time and expense on every job. One owner recently refused \$50.00 rental per day for a two weeks' job in Chicago. Ask for "TruckKraNE" Bulletin.

**THE BYERS MACHINE COMPANY**

240 Sycamore St., Ravenna, Ohio  
Builders of Full Circle Cranes, "Autocranes," Buckets, Hoists, etc.



## Two or Twenty-Five?

**H**OW are you handling your coal and other heavy materials in the yard? Are you using twenty-five men to do by hand, the work that can be done faster and cheaper by two men and a Browning Locomotive Crane? If so, you have a profit leak that should be stopped!

With unskilled labor growing scarcer, your profits can be easily dissipated by inefficient and uneconomical methods in material-handling. You cannot afford to meet present day competition by putting twenty-five men on your pay roll, when two can do the same work—when aided by a Browning.

For coal handling the Browning Locomotive Crane has proven itself the cheapest handling method available. Then when not busy at this, you can put it to work on a dozen jobs in the yards, such as spotting cars, hoisting heavy materials, or handling pig or scrap with a magnet or bucket, and numerous other uses.

Our engineers will gladly go over your individual problems with you and point out how you can effect worth-while savings.

*Descriptive catalogue sent on request.*

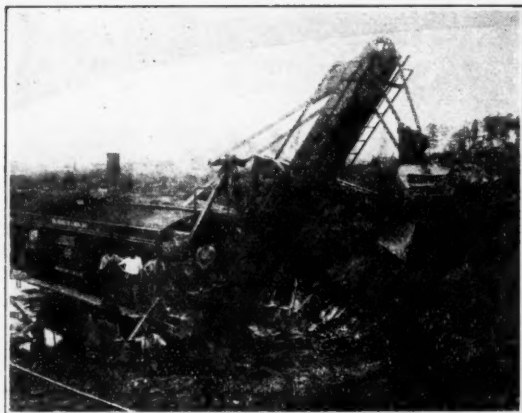
**THE BROWNING COMPANY**  
CLEVELAND, OHIO, U. S. A.

*Sales Agents:* New York Chicago  
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Los Angeles San Francisco  
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Birmingham



# BROWNING

## LOCOMOTIVE CRANES



OSGOOD—69—3 Cu. Yd. Railroad Shovel

## OSGOOD STEAM SHOVELS

Watch an Osgood at work—Note the snappy and speedy response to the operators' control levers. See how easily the most difficult material is handled—then write for our literature and prices.

Railroad type 1-½ to 6 cu. yds.  
Revolving type ¾ and 1 cu. yd.

**The OSGOOD Company**  
Marion, Ohio, U. S. A.

One of 3 ERIES  
owned by Blakeslee & Sons. Only  
12 ft. between  
curb and car  
track, but work-  
ing without in-  
terruption to traf-  
fic.



**Cutting a  
new subgrade  
through hard  
macadam**

"We tore up the hardest macadam roadbed that I ever saw, without a repair, although we wore out the dipper teeth. And the ERIE left the road smooth and true to grade."

—E. N. Clark, Supt., C. W. Blakeslee & Sons,  
New Haven, Conn. (owners of 3 ERIES).

The ERIE is the right shovel for road and street building. It cuts a smooth level subgrade, and gives big yardage even in hard material. Write for Bulletin B showing just what the ERIE can do.

**ERIE STEAM SHOVEL CO., Erie, Pa., U. S. A.**

Incorporated 1883 Formerly Ball Engine Co.

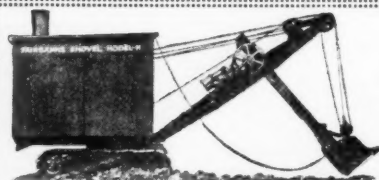
Builders of ERIE Steam Shovels and Locomotive Cranes

Branch Offices: Boston, New York, Philadelphia, Pittsburgh, Chicago



Any ERIE  
easily and  
quickly  
changed over  
to locomotive  
crane for un-  
loading cars  
of stone,  
gravel, etc.

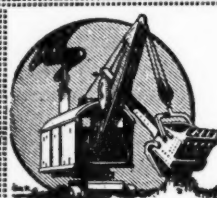
**ERIE** REVOLVING SHOVELS



**The Fairbanks Steam Shovel Co., Marion, Ohio**

### MODEL K ¾ YARD SHOVELS

Steam, gasoline motor or electric power. Standard boom and dipper handle. The standard shovel for road building, quarries, sand and clay pits and general excavation. Full information in Circular 7. Ask for it.



"Marions" Pioneered  
In Big Operations—  
They Still Lead

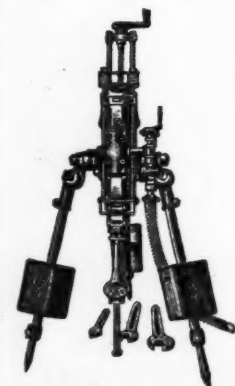
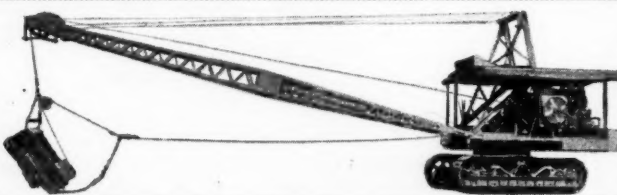
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Marion, Ohio, U. S. A



## NORTHWEST CRANES—DRAGLINES

1 Yard Bucket—40 ft. boom

Northwest Engineering Company  
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## Send for Circular on the Wood "Brownie Drill"

A tripod drill made to be handled by one man. The lightest drill made. Weighs only 83 lbs. unmounted. Drills holes to 7 ft.

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## Silver for Hiram of Tyre

Hiram of Tyre was the metal king of the world in the tenth century, B. C. From Spain, his fleet brought back every third year the entire production of what is now the Rio Tinto Mine.

Three tons of silver a year was all that 40,000 workmen could produce in Hiram's time. In a recent year, at the same mine, 9,000 men, with the aid of explosives, mined 2½ million tons of ore. From this ore, almost 30,000 tons of copper alone was obtained.

But the cost of time and labor are so much higher now than when King Hiram worked the Rio Tinto that even dynamite, as great a labor saver as it is, must be scientifically selected and used.

On work for which it is suited Hercules Special No. 1 is more economical than the usual grades of dynamite. It contains about one-third more cartridges per case than 40% dynamite which it often replaces, cartridge for cartridge; at a saving of about twenty-five percent in blasting costs. It contains nothing but the highest grade of standard materials and by wide use on many kinds of work has proved its dependability.

To help you in using explosives most effectively, we have prepared a series of practical booklets. If you have not yet received them, write to our Advertising Department, 942 King Street, Wilmington, Del., for free copies of "Eliminating Waste in Blasting", "Scientific Quarry Blasting", and "Hercules Products".

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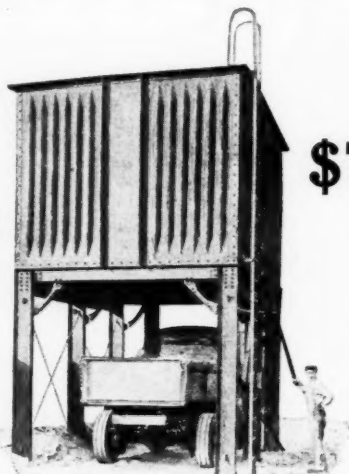
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**STEEL BINS**

For Sand, Gravel, Cinders, Coal, etc.

**\$795**Capacity  
70 Cu. Yds.

The steel bins we illustrate herewith measure 10' x 12' x 15' and have a capacity of 70 cubic yards. Height over all 22'. Truck clearance is 11' as illustrated. These bins are particularly adapted for Road Contractors, Material Yards and Coal Yards. The photograph indicates what a great time and labor saver they are, as trucks can be loaded in a very short time and eliminates double handling. Their portability is an added feature as they are all bolted together in the field, no hot rivets being required. They are far superior to wood which soon decays. Price f. o. b. Chicago \$795.00.

We also manufacture a bin with a hopper bottom having a capacity of 70 cubic yards with one opening 15" square. Essentially the same construction as the flat bottom bin. Price \$995.00 f. o. b. Chicago.

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Bank Building Concrete Paving

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In Car, Scow and Barge Lots

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Giant Portland Cement

Clean Washed Gravel in all sizes

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Washed Sand for Concrete, Roads and  
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Washed Gravel All Sizes

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Shipments: Sand and Gravel from Petersburg, Va.  
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All Types and Sizes

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Designs and estimates to suit your exact conditions.  
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FOR:-ROADS, CONCRETE, ETC.

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Protect the edges of Street,  
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Railway Paving.

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Various sizes  
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**CRUSHED LIMESTONE**

Best for All Purposes

We manufacture all sizes of stone suitable for all  
classes of road building and concrete work where only  
a high-grade limestone is required.

Quarries opened up in 1912.

Capacity 4000 tons daily

Quarries:

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**Asphalt Filler**  
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KNOXVILLE, TENNESSEE



# The BACKBONE of Permanent Highways



**To the Engineer, nothing is more certain than expansion and contraction.**

In freezing weather, the road slab is lifted off the subsoil by the expanded earth on each side—exactly as though supported on beams.

What though it be but a fraction of an inch? The intermittent tensile stresses engendered by traffic passing over the slab, aggravated probably by impact shocks caused by surface unevenness, will develop transverse cracks in the lower part of the slab.

When spring comes, the "beams" disappear—are thawed out. Spring rains, aggravated by the shrinking force of summer heat, contracts the earth on each side of the slab, leaving it supported only in the center—

With the result that the transverse cracks, developed during the winter in the bottom part of the slab, are compressed and show up on the top surface.

The action is not unlike that used in breaking a piece of tin by bending it back and forth.

If it were economically practical to build a road of such thickness as to be absolutely unaffected by subsoil movement and expansion and contraction of the surrounding earth—

**Then there would be no necessity for the use of steel reinforcement.**

Until that time comes, National Road Fabric, the Protector of Concrete Roads—the backbone of permanent highways—will be found the most economical method for reinforcing and preserving the integrity of concrete pavements and thereby prolonging their life.

**Our catalogue will be found of value by all Engineers, Highway Officials and Contractors interested in Good Roads—Modern Roads—write today for your copy.**

## NATIONAL STEEL FABRIC COMPANY

(Subsidiary of Pittsburgh Steel Co.)

702 Union Arcade, Pittsburgh, Pa.

Atlanta	Chicago	Cleveland
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Los Angeles	Minneapolis	San Antonio
San Francisco	St. Louis	



TRADE MARK

# NATIONAL STEEL CO. FABRIC CO.

Subsidiary of — PITTSBURGH STEEL CO.

UNION ARCADE BUILDING

PITTSBURGH, U.S.A.

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CLINCHFIELD is the recognized standard of the South. Backed by a mill that for many years has supplied the largest contractors and engineers in the South.

CLINCHFIELD is manufactured from selected materials of the highest grade, thus assuring absolute uniformity of quality.

CLINCHFIELD has the contractors' preference. Make the best of your opportunities. Line up with a mill which will give you 100 per cent co-operation, service and quality at all times.

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## **CONCRETE FOR PERMANENCE**

### **Southern States Portland Cement**



We produce only one grade

**THE HIGHEST**

ALWAYS UNIFORM

**Southern States Portland Cement Co.**

Office and Mills—ROCKMART, GA.

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### **High Grade Portland Cement**



**QUALITY and  
SERVICE**

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Plant  
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CONCRETE



PERMANENT

### **MR. TAX-PAYER—YOU!**

Do you want your county to spend YOUR good money on roads that will wear out before your bonded indebtedness is liquidated?

**I SAY YOU DON'T.**

What you want is a hard-surfaced road, with little cost for maintenance—a road that can be traveled in rain or snow, summer and winter. You want a **PERMANENT** road—that means **CONCRETE!**

*Write for Literature—It's Free*

**DIXIE PORTLAND CEMENT CO.  
CHATTANOOGA, TENN.**



# With Jaws and Hammers of Steel

Into a steel-lined pit, like a huge inverted bell with upright clapper, crash six tons of limestone and shale from a dump car.

The long process of crushing and grinding necessary in cement making begins.

Slowly, steadily, the great clapper of the gyratory crusher travels a circular path—crunches the huge chunks of stone to inch-and-a-half fragments.

The fragments pour out below on their way to the grinding mills.

In the first mill, a hundred hinged hammers pound and crush the rock to particles the size of sand.

Next, the materials go to the tube mill—a cylinder as big as a locomotive boiler, half filled with steel balls. As it revolves, it lifts the charge of steel and rock and tumbles it down again and again. An hour of this yields a powder finer than flour.

All this is only part of the grinding required. The powder is burned to glass-hard clinker—and then the grinding process starts all over again.

A jaw crusher cracks the clinker; balls hammer it to the fineness of sand.

And again, for an hour, the mass tumbles about in another tube mill, grinding and rubbing together clinker, steel balls and gypsum. Then you have cement.

To meet standard specifications, 78 per cent of the finished cement must pass through a sieve having forty thousand holes per square inch, which is finer than the finest silk.

To obtain a ton of finished cement, a cement plant grinds to this fineness two tons of raw materials, including coal, and a ton of glass-hard clinker—three tons altogether to make one ton of portland cement.

Crushing, grinding and pulverizing are among the more than eighty operations in cement making.

## PORTLAND CEMENT ASSOCIATION

*A National Organization  
to Improve and Extend the Uses of Concrete*

Atlanta	Des Moines	Los Angeles	Parkersburg	San Francisco
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Dallas	Indianapolis	New Orleans	Portland, Oreg.	Vancouver, B. C.
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Actual service under the most exacting conditions is better proof of QUALITY.

It may be HEAVY Traffic, EXTREME Heat, SEVERE Cold, or action of Salt Water—"WARRIOR" stands the gaff.

Its light color makes it very desirable for residences, garages, and stucco work.

## Gulf States Portland Cement Co.

Office and Mills  
DEMOPOLIS, ALABAMA  
SHIPMENTS BY THE WARRIOR RIVER ALSO

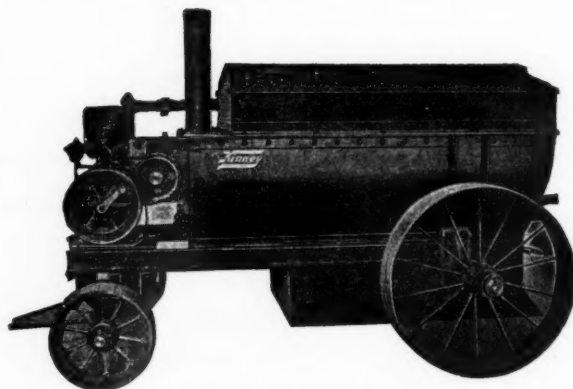


## Handy Heater and Sprayer

Especially adapted for road maintenance, construction and general repair work. Contents constantly agitated while heating.

No burning or coking of material. Pump, Piping, Hose, Nozzles Automatically Heated.

No Steam Required.



Kinney Manufacturing Co.  
Boston, Mass.

## AZTEC Expansion Joint

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(Licensed under letters patent)

A premoulded asphalt joint reinforced with metal.

Shipped in long lengths—especially wrapped.

Meets every requirement of an expansion joint.

Conveniently handled.

Prompt service.

**Non-Reinforced Joint**  
in short lengths also provided.

Write for particulars.

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For Tar  
Asphalt  
Fillers  
Compounds

THE JOS. HONHORST CO.  
1016 W. Sixth St., Cincinnati, O.

## LITTLEFORD "TAR AND ASPHALT HEATERS"

For CONSTRUCTION  
and MAINTENANCE  
of ROADS and STREETS



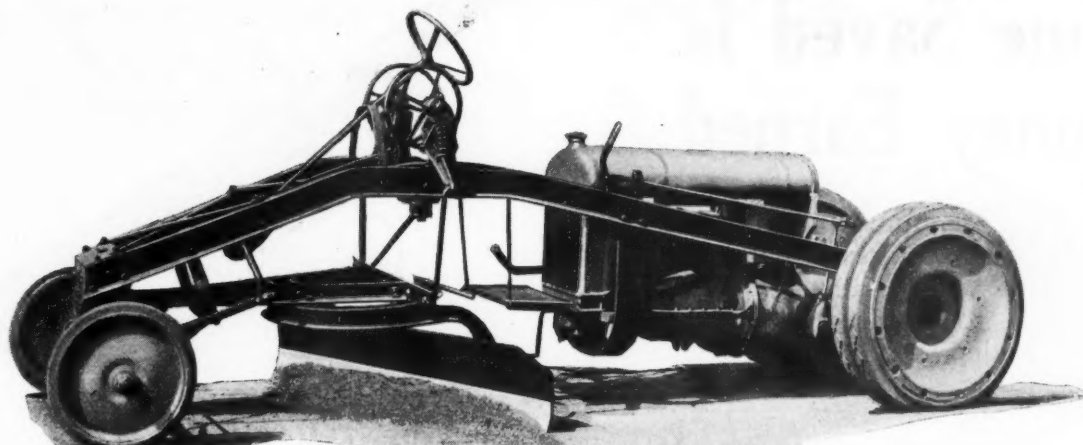
Complete line of Paving Tools carried in stock.

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CINCINNATI, OHIO

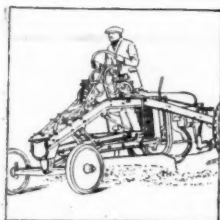
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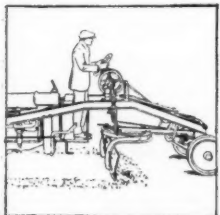


## WEHR One-Man Power Grader

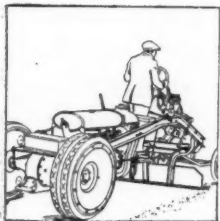
# Transforming Dirt Roads into Highways



Thousands of Fordson Tractors are already in use hauling trailers, road drags, scrapers and graders as well as filling other utility jobs in road building. However, the introduction of the Wehr One-Man Power Grader for preparing the road bed in new construction work and for maintaining dirt roads has already proven to be one of the most important contributions toward road building economy.



Here is a complete outfit—tractor, grader and all the necessary tractor accessories which will do the work of six horses and four men and the cost complete is less than the cost of the tractor required to haul the average road grader—yes, half the cost in many cases.



The ponderous road building outfit must go. Speed and thorough work are the deciding factors.

The Wehr One-Man Power Grader is unique. It is used in combination with the Ford-

son Tractor. The tractor and grader are quickly attached and converted into a one-man outfit. There are no holes to drill, just a matter of attaching and tightening bolts.

The blade can be quickly raised, lowered or swung to any side or angle. Clutch and gears are manipulated from the operator's platform by means of hand and foot levers.

This outfit is revolutionizing road building. It can be used the year round—for building and maintaining roads during the summer months and for keeping highways and streets clear from snow during the winter months.

It will soon be standard equipment with City, County and Township Commissioners as well as the "work horse" with every road building contractor.

Some territories are still open for progressive distributors and representatives. Write or wire for proposition immediately.

### SPECIFICATIONS

**WEIGHT OF GRADER—**without Fordson or wheels 1,265 lbs.

**WEIGHT COMPLETE AS SHOWN—**7,100 lbs.

**WEIGHT OF GRADER AND TRACTOR COMPLETE—**With standard Fordson wheels, approx. 4,000 lbs.

**BLADE—**6 ft. long 14 in. wide, including removable high carbon Cutting Edge.

**MAIN FRAME—**Channel steel 5 inches deep 2 inches wide  $\frac{3}{8}$  in. thick.

**WHEEL BASE—**13 ft. 2 in.

**CASTINGS—**All castings of electric steel.

**DRAFT BEAMS—**Angle Section steel 3 x 3 x  $\frac{5}{16}$  in. thick.

**BLADE BEAMS—**T. section steel 3 in. x  $3\frac{1}{2}$  in. x  $\frac{1}{2}$  in. thick.

Remember that Fordson Service and Parts are available at all times everywhere

## THE WEHR COMPANY

Fordson Tractor Equipment

573 30th Street

Milwaukee, Wisconsin

# Time Saved Is Money Earned

**W**HERE material is loaded by hand, congestion and a line-up of waiting trucks or wagons are bound to result, and every delay means added expense and loss of profits.

Save Three-Fourths on Your Loading or Unloading Costs By Using A

## JEFFREY PORTABLE BELT CONVEYOR




*Isn't this worth your earnest investigation? Send for Catalog No. 369-I.*

The Jeffrey Mfg. Co., 926-99 North Fourth Street, Columbus, Ohio



The Jeffrey Portable Belt Conveyor—meets the demand for a light, durable and inexpensive conveyor.

It takes 3 men 40 minutes to load a 5-ton truck—a Jeffrey Portable Belt Conveyor and one man will do it in 10 minutes. Figuring the cost of labor at 40c per hour, the conveyor loads at a cost of 2c per ton against 16c per ton by hand, or an average saving of 14c per ton.

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MATERIALS HANDLING EQUIPMENT  
Elevators, conveyors, hoisting equipment  
**The GEORGE HAISS MFG. CO.,**  
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Established 1892      Representatives throughout the world

To have the edge on the seller—know as much about what you buy as he does.  
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Competent Consulting assistance. Long experience on extensive and varied installations.

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Road Rollers, Road Machinery, Culverts and Supplies  
**THE GALION IRON WORKS & MFG. CO.**  
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ROAD BUILDING EQUIPMENT FOR EVERY REQUIREMENT OF CONTRACTOR AND ROAD BUILDER

*What do you need?*

We want to furnish you Full Information on any Equipment in which you are interested  
Write or telegraph for Catalogue and Prices

**PUT IT OVER**  
with a **ROBINS PORTABLE**  
and reduce your handling costs.

*Write for Bulletin No. 57-M.*

**ROBINS CONVEYING BELT CO.**  
New York - Chicago - Pittsburgh  
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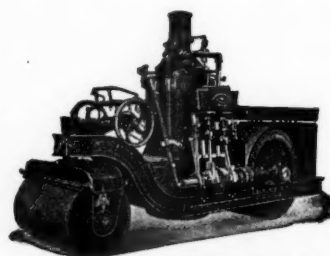
## WONDER MIXERS

The ORIGINAL Single Opening Tilting Mixer—ball bearing drum—pouring discharge—fast visible mixing action.

Ask for the New Wonder Catalog

It contains the biggest values on the market. Write today.

**CONSTRUCTION MACHINERY COMPANY**  
428 VINTON STREET      WATERLOO, IOWA



**"ERIE"**  
Tandem  
Steam  
Rollers  
for  
**STRENGTH  
DURABILITY  
SIMPLICITY**  
and

**ECONOMY of OPERATION and LONG LIFE**

*Ask for Catalog "M"*

**ERIE MACHINE SHOPS**  
ERIE, PENNA., U. S. A.





## AUSTIN MOTOR ROLLERS

**"They Serve You Right"**

Everything you expect of a Road Roller you will find in the Austin Motor Roller to a greater degree than in any other.

Ready for work at a moment's notice, able to turn out more work in a given time than any other roller, and inexpensive to operate and maintain—your first experience with one of these machines will be a revelation of Real Roller Service.

Made in two styles (single or twin engines) and five sizes (7, 8, 10, 12 and 15-ton), there is a size and style that will meet your requirements exactly. Pneumatic Scarifiers can be attached to the 10-ton and larger sizes as shown in the photograph.

*Special Roller Catalog FM tells the whole story of these most efficient machines.*

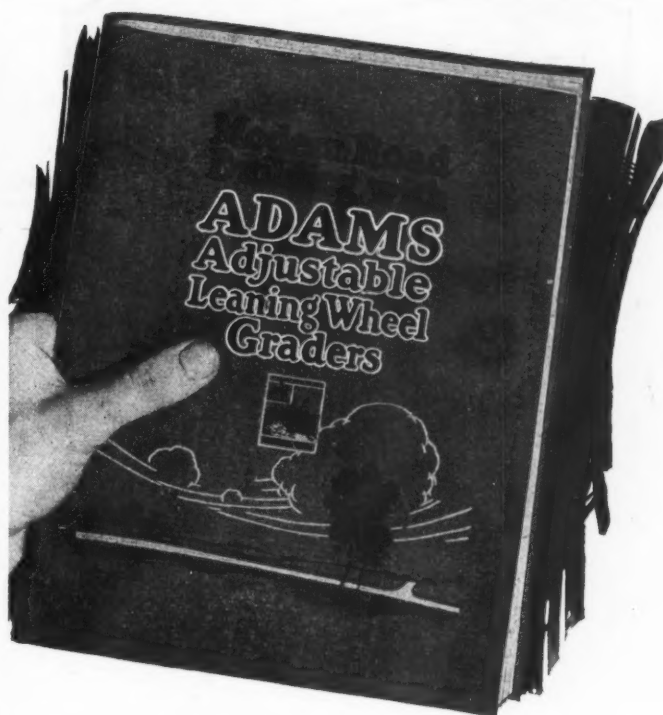
*Write for your copy today.*

**"Everything from a Drag Scraper to a Road Roller."**

**The Austin-Western Road Machinery Co.**

**Home Office—Chicago**

*Branches in 22 Cities*



## Get Your Copy

**I**F you haven't written for a copy of this new Adams Grader Catalog, do so at once. It is full of practical, money-saving information for every Highway Official, Street Commissioner and Road Contractor.

It illustrates and describes the most advanced methods of road construction, proves why Adams Graders do the work better and at less cost than any other machinery, and shows the complete line of Adams Graders and Road Machinery. It costs you nothing—yet may save you hundreds of dollars. Send for your copy today. Just fill out and mail the coupon below.

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coupon  
now!**

M. R. 3-15

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Indianapolis, Ind.**

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your 1923 Catalog.

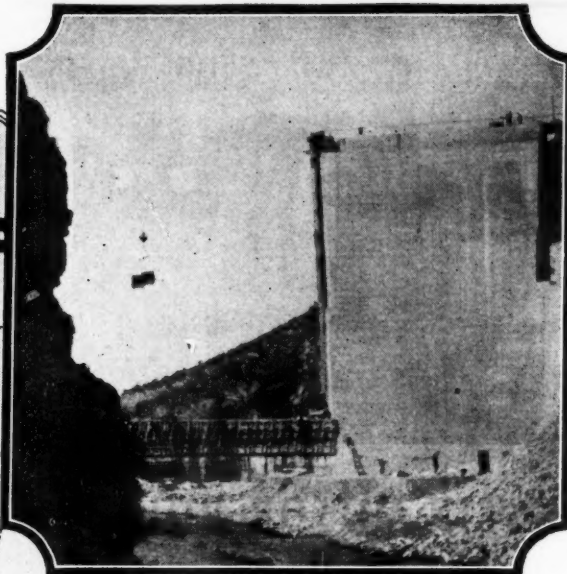
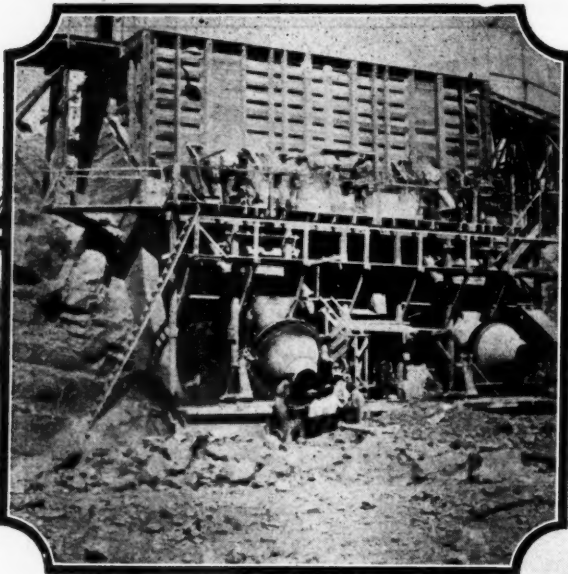


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EGYPT

SUDAN

## Building South Africa's Largest Dam

Two big Smith (28-S) Tilting Mixers are pouring the concrete for the Hartbeespoort Dam, the arch bridge of which spanning the spillway and carrying the main road to Rustenburg, is said to be the largest arch bridge in South Africa.

A colony of 7000 people has been established at this project, of which about 3000 are working at the dam and at the right and left bank canals.

After pouring the concrete for the foundation the Mixers were raised to their permanent locations as shown above. From here the Smith-mixed concrete is dumped into 1-yd. steel trucks, part of which is trammed to the top of the completed dam wall and poured down the wooden chute.

Cableways carry two truck bodies at a time for that part of the wall not adjacent to the chute.

The dependability of concrete mixers is of

utmost importance where work must be carried on in remote locations. It is significant that Smith Mixers are mixing the concrete for the far-away South African Dam—and have been used on such other large projects as at Muscle Shoals and at the Roosevelt Dam.

*Catalog 405 tells all about Smith Tilting Mixers.*

### THE T. L. SMITH COMPANY

1230-32nd Street, Milwaukee, Wisconsin

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Houston, Texas, Alamo Steel & Supply Co.  
San Antonio, Texas, Alamo Iron Co.

#### For the Smallest Jobs Also

For any concrete job—there is a Smith Mixer of a type and size suitable and efficient. For road work, Smith Paving Mixers have given the same dependable service as given by Smith Construction Mixers during the last quarter-of-a-century. If you require a general purpose mixer for walks, curbing, retaining walls, building and bridge foundations, culverts, Smith Non-Tilting 7-S or the Mixerette (4-S) are recommended. And where a still smaller mixer is required—well, see our announcement in an early issue of this magazine.

# SMITH MIXERS



For Building Concrete Roads—also Sand and Gravel work

## EAGLE UNIVERSAL DUMP BODIES



**E**AGLE Gravity Dump Bodies for Ford Ton Trucks are growing rapidly in favor with both dealers and users—for there is no comeback once the job is sold, because users are satisfied and become boosters for EAGLES. Bodies regularly furnished with steel lined bottom—or lined thruout with steel if so ordered.

Ask us for literature on our new platform dump.

Ask us for prices and distributor's proposition.

**THE EAGLE WAGON WORKS**

Auburn  
New York

Manufacturers  
of the famous  
Eagle Dump Wagon.



## A one man dump body for FORD TRUCK

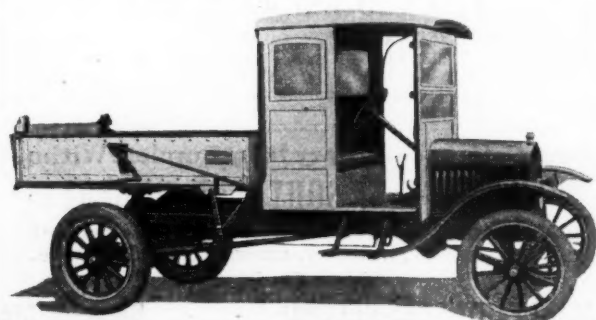
Note the position of the lever which automatically operates the dumping of any load. This patented controlled lever, when pulled forward, dumps the body which is built on the gravity system. Lifting the lever brings the body back in place. An adjustment of the tail gate, swinging the gate from the bottom instead of the top, converts the body into an express wagon without any expense. Body built of  $\frac{3}{8}$ " sheet steel, square corners and bottom, hot riveted, rivets in bottom countersunk.

Bodies arranged for side boards, thereby increasing the capacity if desired.

We make bodies for all makes of trucks.

Write for complete data

**Jennings Automatic Dump Body, Inc.**  
ROANOKE, VIRGINIA



## A Super Tower

Generosity typifies the design and construction of Caldwell Structural Towers. To provide the strength and sturdiness that have marked the unusual success of this type of tower for heavy loads and great heights we have spared no precaution in material or workmanship.

This tower is built of heavy structural shapes thoroughly laced and riveted together by the most modern scientific engineering methods. It is built for steel or wood tanks in capacities from 15,000 gallons upward.

Send for Catalog

**W. E. Caldwell Co., Incorporated**  
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*Caldwell*  
TANKS  
AND  
TOWERS

## Chattanooga Boiler & Tank Co.

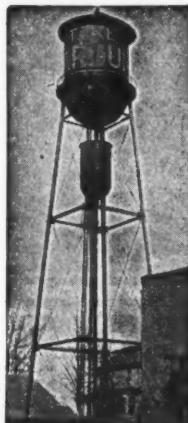
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CHATTANOOGA, TENN.

If made of Steel, we make it.  
Tanks anywhere for any service.

## Steel Riveted Pipe Standpipes Tanks on Towers

We make dye tanks and also manufacture special work for chemical plants



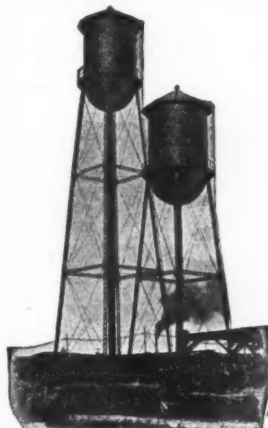
## TOWERS & TANKS

**WALSH & WEIDNER**  
Towers and Tanks are correct in design. Their simplicity contributes to their low cost of maintenance.

Our shop equipment includes the best for production, and our facilities for quick shipment are unexcelled.

Our estimate on your next requirements will save you money.

**The Walsh & Weidner Boiler Co.**  
CHATTANOOGA, TENN.



## TANKS

Stacks, Breechings, Kilns, Etc.  
Oil Refinery and Chemical Equipment.  
General Steel Plate Construction. Manheads and Saddles.  
**NEW YORK CENTRAL IRON WORKS CO., INC.**  
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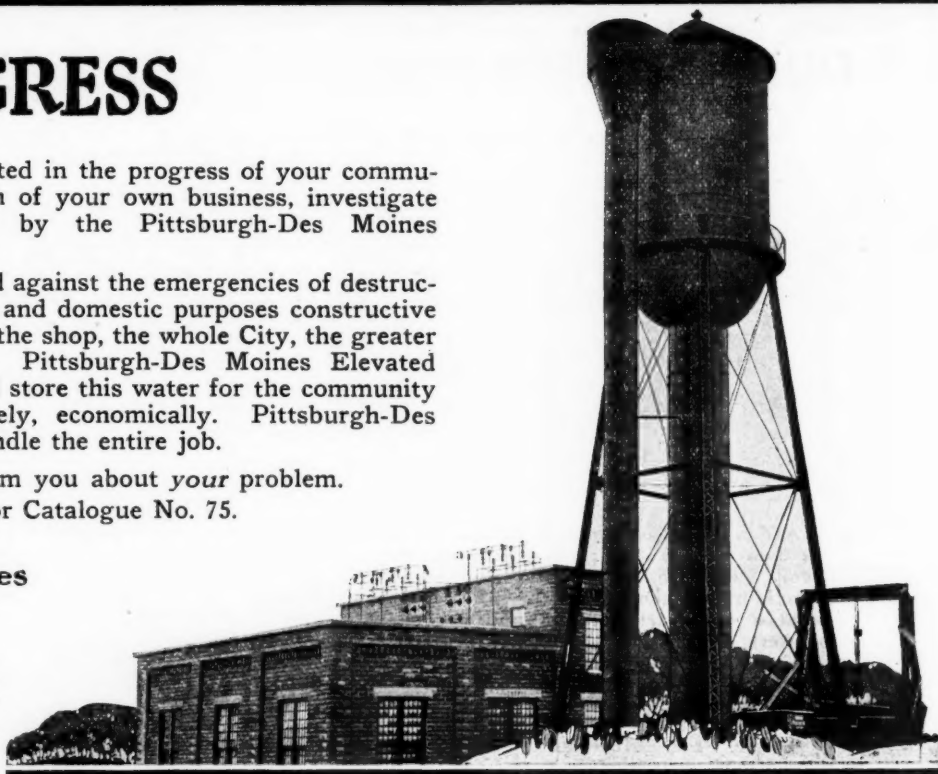
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In this territory is the Lake Worth Drainage District recently completed and comprising about 130,000 acres of land lying just west of the railroad.

This drainage district is one of the most thoroughly designed of any that has ever been organized in the South. Both drainage and sub-irrigation canals have been built, which provide for draining the lands in wet weather and irrigating them in dry periods.

These lands are splendidly adapted to dairying. There are at present markets for more dairy products than are produced in this territory. Whole milk and cream being shipped in by rail for several hundred miles. The population in this locality is increasing very fast. A modern fully equipped creamery has recently been opened at West Palm Beach thus giving a direct cash outlet for any dairy productions.

This drainage district is in the only tick free part of Florida at present. Enabling the dairyman to bring the best of cattle from any place without any loss from this trouble.

The soil is of such a type, with the drainage and irrigation, that large yields of forage and other crops can be produced.

Splendid transportation facilities are available, as the lands lie close to the Florida East Coast Railway and a number of lateral highways penetrate the property, while a bond issue has been sold to increase the good road mileage of this district.

These lands are being placed on the market at special terms to those making immediate purchase and developing part of their land.

*Further information regarding the opportunities offered in this new area and at other East Coast points, will be gladly furnished.*

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OF THE FLAGLER SYSTEM

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Florida is growing and developing in a truly remarkable way.

This state offers splendid opportunities unsurpassed by any section in America for farmers, dairymen, cattle raisers, and growers of fruits and vegetables. The annual value of its farm crops now amounts to \$80,000,000.

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The Seaboard Air Line runs through the heart of Florida, reaching into those sections that are showing the greatest activity in development and expansion.

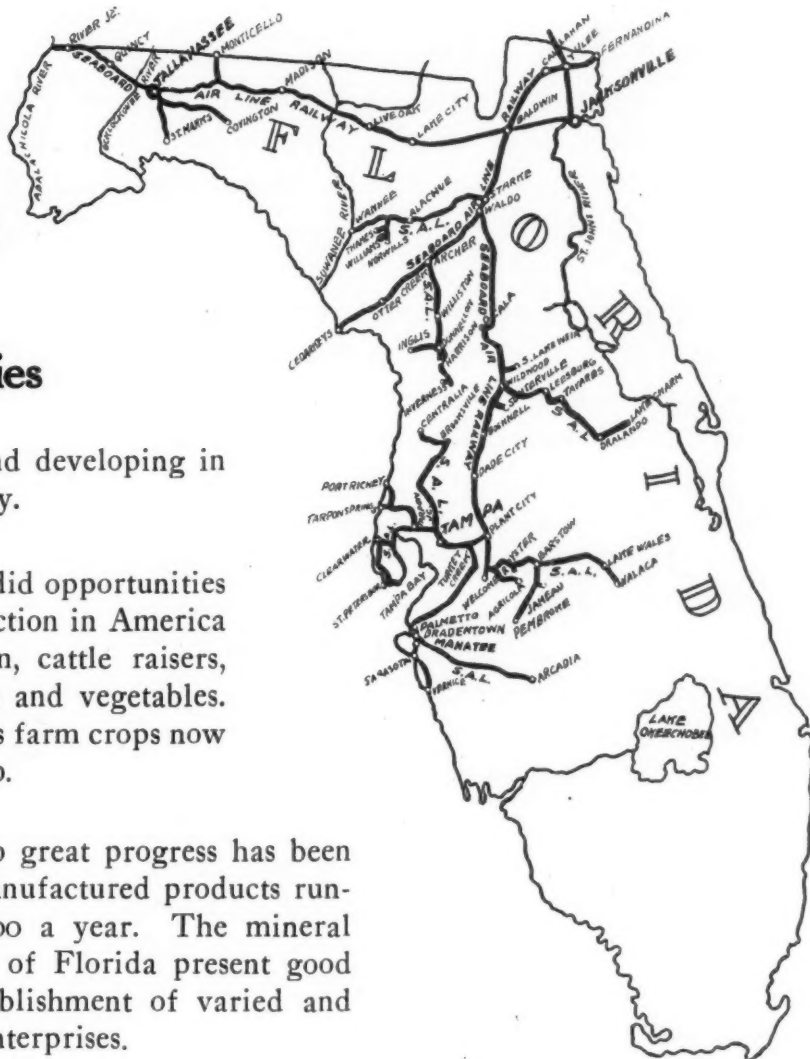
*We will gladly furnish information about the agricultural and industrial opportunities in Florida.*

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Wood's Sons Co., T. B., Chambersburg, Pa.

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Dodge Mfg. Corp., Mishawaka, Ind.  
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Keystone Driller Co., Beaver Falls, Pa.  
Manistee Iron Works Co., Manistee, Mich.  
Morris Mch. Wks., Baldwinville, N. Y.  
Nashville Ind. Corp., Jacksonville, Tenn.  
Penna. Pump & Comp. Co., Easton, Pa.  
Pusey and Jones Company, The, Wilmington, Delaware.

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Rider-Ericsson Engine Co., New York.

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Penna. Pump & Comp. Co., Easton, Pa.  
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York, N. Y.

Coldwell-Wilcox Co., Newburgh, N. Y.

Columbian Iron Works, Chattanooga, Tenn.

Cook, A. D., Lawrenceburg,

# Alphabetical Index of Advertisements

## A

A-287.....122  
A-290.....122  
A-291.....107  
A-292.....122  
A-293.....122  
Abendroth & Root Mfg. Co. 38  
Acme Wagon Co. 149  
Adams & Co., J. D. 1  
Air-Tight Steel Tank Co. 152  
Alabama Clay Products Co. 10  
Alabama Company.....22  
Alabama Power Co. 115  
Albert & Davidson Pipe Corp. 127  
Albright & Mebus.....48  
Allegheny Steel Co. 152  
Allen Engineering Co. 3  
Allan Mfg. & Welding Co. 3  
Allis-Chalmers Mfg. Co. 6  
Allison, Walter A. 50  
Allyn & Co., A. C. 113  
Ambruster, Howard M. 50  
American Appraisal Co. 49  
American Bridge Co. 119  
American-British Security Co. 119  
American Cast Iron Pipe Co. 38  
American Cement Machine Co., Inc. 1  
American Cement Tile Mfg. Co. 28  
American Chimney Corp. 31  
American Creosote Works, Inc. 32  
American Cross-Arm Co. 32  
American Elevator & Mch. Co., Inc. 29  
American Enameled Brick and Tile Co. 30  
American Fence Construction Co. 52  
American Limestone Co. 142  
American Mch. Eq. Co. 122  
American Pattern Wks. Co. 42  
American Process Co. 45  
American Pulley Co. 37  
American Rolling Mill Co. 21  
American Saw Mill Machinery Co. 133  
Amer. Sheet & Tin Plate Co. 21  
American Spiral Pipe Wks. 133  
American Steel & Wire Co. 133  
American Telephone & Telegraph Co. 1  
Amer. Water Softener Co. 170  
American Window Glass Co. 170  
Anderson Fdry. & Mch. Co. 170  
Anderson Motor Co. 170  
Andrews Co., A. H. The. 50  
Anneton Refractories Co. 10  
Archer & Co., E. T. 48  
Arctic Ice Machine Co. 12  
Arco Culvert & Flume Mfr. Association. 128  
Armstrong & Co., Archer. 128  
Armstrong Mfg. Co. 6  
Arundel Corporation. 142  
Ashland Fire Brick Co. 10  
Ashmead, Henry C. 10  
Ashworth, F. K. 10  
Atkins & Co., E. C., Inc. 10  
Atlanta Bolt & Steel Products Co. 1  
Atlanta Locomotive & Equipment Co. 131  
Atlanta Terra-Cotta Co. 30  
Atlanta & West Point R. R. Co. 120  
Atlantic, Gulf & Pacific Co. 133  
Atlas Car & Mfg. Co. 133  
Atlas Portland Cement Co. 133  
Atlas Powder Co. 133  
Audubon Wire Cloth Co., Inc. 133  
Aurora Pump & Mfg. Co. 39  
Austin Machinery Corp. 136  
Austin, W. S. 48  
Austin Mfg. Co. 1  
Austin-Western Road Machinery Co. 149  
Automatic Electric Co. 47  
Ayres & Miller. 49

## B

Babcock & Wilcox Co. 6  
Baber, Henry H. 130  
Bacon & Sons, A. S. 32  
Bailey-Labby Co. 16  
Ball Engine Co. 140  
Baltimore Belting Co. 1  
Baltimore Commercial Bank. 113  
Bank of Alabama, The. 1

Bannon Pipe Co. 3  
Barber Asphalt Co. 3  
Barnett Co., G. & H. 3  
Barrett Company. 123  
Barrett-Cravens Co. 123  
Bartholomew Hardwood Co., E. 37  
Bauer Bros. Co. 37  
Bay City Dredge Works. 134  
Bayley & Co., C. A. D. 109  
Bear Tractors, Inc. 109  
Beaver Mfg. Co. 25  
Bell & Co., A. T. 25  
Belmont Iron Works. 25  
Bender Iron & Supply Co., S. 126  
Benjamin Equip. Co., Harry 48  
Berkeley, W. N. 48  
Bessemer, Ala., Chamber of Commerce. 120  
Bessemer Gas Engine Co. 4  
Bethlehem Steel Co. 20  
Biggs Engineering Co., W. E. 49  
Binney & Smith Co. 16  
Binzinger & Co. 31  
Birmingham Clay Products Co. 31  
Birmingham Rail & Loco. Co. 131  
Birmingham Slag Co. 54  
Bissell Co., F. 125  
Black & Co. 113  
Black & Veatch. 48  
Blake Lumber Co., Thos. W. 27  
Blaw-Knox Co. 27  
Bliss Co., E. W. 31  
Blystone Mfg. Co. 32  
Boiler Tube Co. of America 32  
Bonneville Supply Co. 32  
Borne, Scrymser Co. 29  
Bourbon Copper & Brass Works Co. 39  
Box & Co., Inc., Alfred 18  
Box, 364. 129  
Boxley & Co., W. W. 142  
Briddell Co., Inc., W. C. 21  
Brier Hill Steel Co. 21  
Broderick & Bascom Rope Co. 56  
Brooks Supply Co. 127  
Brownell Company. 139  
Browning Co., The. 139  
Brown Hoisting Mchry. Co. 10  
Buckeye Blower Co. 10  
Buckeye Machine Co. 10  
Bucyrus Co. 10  
Buffalo Forge Co. 10  
Buffalo Springfield Roll. Co. 26  
Buffalo Steam Pump Co. 26  
Buffalo Wire Works Co. 26  
Burroughs & Co., R. A. 21  
Burrows, E. A. 50  
Byers Machine Co. 138  
Byllesby Eng. & Management Corp. 49

## C

Cabot, Inc., Samuel. 142  
Cable Excavator Co. 142  
Caldwell & Co. 113  
Caldwell & Co., E. R. 37  
Caldwell & Co., Inc., W. E. 151  
Caldwell & Son, H. W. 4  
Cambria Clay Products Co. 10  
Camp & Associates, E. V. 49  
Canal Construction Co. 48  
Cannellon Clay Products Co. 10  
Cannellon Sewer Pipe Co. 38  
Canton Art Metal Co. 1  
Capital Lift & Mfg. Co., The 29  
Carborundum Co. 19  
Cardwell Machine Co., The 37  
Carey Co., Thos. F. 129  
Carnegie Steel Co. 1  
Carolina Engineering Co. 48  
Carolina Lumber Co. 32  
Cast Iron Pipe Publicity Bureau. 123  
Castle & Wilson. 123  
Central Coal & Coke Co. 33  
Central Foundry Co., The. 38-124  
Central of Georgia Railway. 120  
Central Pipe & Sup. Co. 121  
Central Steel Co. 1  
Chain Belt Co. 34  
Chambers Bros. Co. 25  
Champion Bridge Co. 25  
Chandler & Chandler. 1  
Charleston Dry Dock & Machine Co. 1  
Chase Metal Works. 1  
Chattanooga Armature Works. 14  
Chattanooga Boiler & Tank Co. 151  
Chattanooga Paint Co. 31

Chattanooga Sewer Pipe Works. 30  
Chesapeake Belting Co. 14  
Chesapeake Iron Works. 18  
Chevrolet Motor Co. 152  
Chicago Bridge & Iron Wks. 152  
Chicago Watchman's Clock Works. 30  
Christie Co., L. R. 42  
Church & Dwight Co. 4  
Chuse Engine & Mfg. Co. 26  
Cincinnati Fly Screen Co. 26  
Cincinnati Frog & Switch Co. 131  
Cincinnati Iron & Steel Co. 21  
Clarendon Co. Highway Com. 129  
Clark, Jr., Elect. Co., Jas. 48  
Clark & Krebs. 48  
Classified Opportunities. 117-118  
Climax Engineering Co. 132  
Climax Mfg. Co. 132  
Clinefield Portland Cement Corp. 144  
Coggins Marble Co. 122  
Cohen & Sons, Louis. 130  
Coldwell-Wilcox Co. 39  
Cole Mfg. Co., R. D. 152  
Colman Creosoting Co., Inc. 32  
Columbian Iron Works Co. 39  
Columbus Conveyor Co. 50  
Columbus Forge & Iron Co. 50  
Columbus McKinnon Chain Co. 50  
Concrete Steel Bridge Co. 50  
Concrete Steel Co. 24  
Consolidated Prod. Co. 128  
Construction Machinery Co. 148  
Continental Gin Co. 1  
Contractors Machinery & Supply Co. 25  
Converse Bridge & Steel Co. 25  
Cook, A. D. 1  
Cook's Sons, Inc., Adam. 1  
Cooling Tower Co., Inc. 13  
Cooper & Co., Hugh L. 48  
Copper & Brass Research Assn. 1  
Cordele Sash, Door & Lumber Co. 32  
Corinth Machinery Co. 37  
Cornell-Young Co. 49  
Corning Glass Wks. 127  
Cortright Metal Roofing Co. 120  
Cosgrove, John I. 120  
Crane Co. 32  
Creosoted Materials Co. 32  
Cresson-Morris Co. 17  
Crompton & Knowles Loom Works. 1  
Crow, Waller, Inc. 50  
Cruible Steel Casting Co. 20  
Cummer & Son Co., F. D. 142  
Curtis Bay Copper & Iron Works. 20  
Cutler Mail Chute Co. 50

## D

Dahlstrom Metallic Door Co. 35  
Dake Engine Co. 134  
Dart Mfg. Co., E. M. 134  
Davis Foundry & Machine Works. 1  
Davis Sons Co., J. F. 124  
Davis & Son, G. M. 43  
Davison Chemical Co. 49  
Day & Zimmerman, Inc. 49  
Dean Bros. Co. 41  
De Laval Steam Turbine Co. 113  
Delaware Registration Trust Co. 113  
Deming Apparatus Co. 126  
Dempster Equip. Co. 31  
Dexter Metal Mfg. Co. 25  
Dietrich Bros. 25  
Dinge Magnetic Separator Co. 13  
Dixie Brass & Foundry Co. 20  
Dixie Mill Supply Co. 124  
Dixie Portland Cement Co. 144  
Dixie Sand & Gravel Corp. 142  
Dixon Crucible Co., Jos. 31  
Dodge Mfg. Corp. 1  
Domestic Engine & Pump Co. 1  
Donnelly & Co. 50  
Dorman Co., J. F. W. 1  
Doubleday-Hill Elec. Co. 48  
Doullat & Williams Co., Inc. 48  
Downtown Iron Works. 48  
Dow & Smith. 56  
Dow Co., Inc., The. 56  
Draper Corporation. 56

Draper, E. S. 48  
Druid Oak Belting Co. 26  
Dufur, Baggott & Co. 26  
Dufur & Co. 26  
Dunning & Boschert Press Co. 39  
DuPont de Nemours, E. I. 1

## E

Eagle Wagon Works. 151  
Earle Gear & Machine Co. 39  
East Iron & Machine Co. 129  
Eastman Gardner Hardwood Co. 32  
Eaton & Associates, Howard N. 48  
Eco Clock Co. 12  
Edge Moor Iron Co. 28  
Edwards Mfg. Co. 28  
Eichleay Jr. Co., John. 24  
Electric Bond & Share Co. 113  
Electric Controller & Mfg. Co. 13  
Electric Hoist & Derrick Co. 128  
Electric Welding Co. 18  
Electric Wheel Co. 113  
Elkins & Co., M. W. 113  
Ellis, A. Lee. 128  
Elphinstone, D. C. 1  
Elwell-Parker Electric Co. 56  
Emerson Pump & Valve Co. 40  
Empire Coal Co., The. 12  
Eppinger & Russell Co. 32  
Erdle Perforating Co. 43  
Erie City Iron Works. 5  
Erie Machine Shops. 148  
Erie Pump & Engine Works. 41  
Erie Steam Shovel Co. 140  
Ernst & Ernst. 1  
Evans & Co., Victor J. 1  
Evinrude Motor Company. 1  
Exch'g Sawmills Sales Co. 26

## F

Fairbanks Steam Shovel Co. 140  
Fairbanks, Morse & Co. 25  
Farris Bridge Co. 133  
Fate-Root-Heath Co. 133  
Fawcett Machine Co. 17  
Fennholtz Brick Mchry. Co. 17  
Fifth-Third Natl. Bank of Cincinnati. 112  
Fihe, Albert J. 1  
First Nat. Bank, Richmond. 113  
Fleet-McGinley Co. 122  
Florida Machine Wks. 122  
Foss Gas Engine Co. 49  
Ford, Bacon & Davis, Inc. 49  
Foster Co., H. M. 131  
Foster Co., L. B. 131  
Foundation Company. 130  
Franklin Coal Co. 130  
Frank, M. K. 130  
Frazer Milling Corp., Jas. 127  
Freeland, Roberts & Co. 48  
Freeport Sulphur Co. 34  
Freese & Co., E. M. 34  
Frick Co., Inc. 142  
Frick, Inc., I. P. 129  
Fritz Co., W. G. 129  
Froehling & Robertson. 48  
Fuston, Walter J. 1

## G

Gallon Iron Works & Mfg. Co. 148  
Gardner & Howe. 48  
General Box Co. 105  
General Electric Co. 15  
Gen. Equip. Co. of Syracuse. 123-128  
General Motors Truck Co. 50  
George Construction Co. 50  
Georgia Car & Loco. Co. 129  
Georgia-Carolina Brick Co. 128  
Georgia Creosoting Co., Inc. 32  
Glagoriam Pipe & Fdry. Co. 38  
Globe Iron Roofing & Corrugating Co. 31  
Golden Gravel Co. 124  
Goldens' Fdry. & Mch. Co. 16  
Goodrich Rubber Co., B. F. 1  
Goodyear Tire & Rubber Co. 14  
Goulds Mfg. Co. 41  
Godwin Co., Inc., W. S. 142  
Grady & Co., Inc., Thos. E. 122  
Grainger & Co. 24  
Great Southern Lumber Co. 110

Gregory Electric Co. 124  
Greiner & Co., J. E. 48  
Griffith, Frank. 172  
Grinnell Co. 172  
Grundler Patent Crusher & Pulverizer Co. 42  
Guilford Creosoting Co. 32  
Gulf Refining Co. 18  
Gulf States Portland Cement Co. 146  
Gurley, W. & L. E. 51

## H

Hadfield-Penfield Steel Co. 4  
Hais Mfg. Co., Geo. 148  
Halsey-Stuart & Co. 112  
Hamburg Boiler Works. 152  
Hammond-Byrd Iron Co. 38  
Hammond Heating Co. 113  
Hanchett Bond Co. 113  
Harbison-Walker Refractories Co. 110  
Harrington & King Performing Co. 124-127  
Harris Bros. Co. 124-127  
Hartley Boiler Works. 124  
Hauser-Stander Tank Co. 138  
Hayward Co. 138  
Heine Boiler Co. 126  
Heineken, W. P. 126  
Helzel Steel Form & Iron Co. 156  
Hendricks Co., Inc., S. E. 156  
Hendrick Mfg. Co. 43  
Hercules Powder Co. 141  
Hickman, Williams & Co. 21  
Highland Pines Inn. 111  
Hill & Griffith Co. 49  
Hills Co., George B. 49  
Hill & Co., John T. 126  
Hill's Mixture Corp. 1  
Hill, Norman Alan. 48  
Hires-Turner Glass Co. 26  
Hitner's Sons Co., Henry A. 131-131  
Hochstadter Laboratories. 48  
Hoisting Machinery Co. 129  
Honhorst Co., The Jos. 146  
Hood Brick Co., B. Miffin. 1  
Hoppendietzel Constr. Co., Inc., H. B. 48  
Houston Railway Car Co. 129  
Howard Refractories Co. 10  
Hubbard-Floyd Co., Inc. 125  
Hughes-Keenan Co. 1  
Hughes Specialty Well Drilling Co. 40  
Hull Lumber Co., C. G. 32  
Hunt & Co., Robert W. 49  
Hyman-Michaels Co. 1

## I

Ideal Electric & Mfg. Co., The 1  
Independent Concrete Pipe Co. 1  
Independent Pneumatic Tool Co. 14  
India Alkali Works. 39  
Indianapolis Brush & Broom Mfg. Co. 36  
Industrial Equipment Co., The. 133  
Industrial Lumber Co. 1  
Ingalls Iron Works Co. 135  
Ingersoll-Rand Co. 135  
International Clay Machinery Co. 34  
International Filter Co. 12  
International Steel & Iron Co. 21  
Ironion Fire Brick Co. 10  
Irving Iron Works Co. 1

## J

Jeffrey Mfg. Co. 148  
Jenkins Bros. 5  
Jennings Automatic Dump Body Co., Inc. 151  
Johns-Manville, Inc. 11  
Jointless Fire Brick Co. 10  
Jones & Laughlin Steel Corp. 1  
J. T. Tractor Co., The. 151

## K

Kaustine Co., Inc. 50  
K. C. Elevator Mfg. Co. 29  
Kehoe, Robert P. 124  
Kelly-Springfield Tire Co. 1  
Kentucky Oxygen-Hydrogen Co. 18



Keystone Driller Co. 40  
 Kilby Frog & Switch Co. 131  
 Kimball Bros. Co. 29  
 Kingsport Brick Corp. 30  
 Kinnear Mfg. Co. 35  
 Kinney Mfg. Co. 146  
 Kirby-Bonner Lumber Co. 1  
 Kleinhans Co., H. 131  
 Klein & Co., Nathan. 128  
 Klyce, B. H. 48  
 Knoxville Iron Co. 24  
 Koehring Co. 1  
 Koppel Ind. Car & Eq. Co. 132  
 Kries & Sons Co., Henry A. 128

## L

Laclede Steel Co. 24  
 Lancaster Iron Works. 153  
 Larew Printing Co. 110  
 Layne & Bowler Co. 41  
 Lee, Wm. S. 48  
 Leffell & Co., James. 41  
 Lehman, Chas. T. 129  
 Lenderking, Philip H. 1  
 Leechen & Sons Rope Co., A. 56  
 Letson, Co., T. H. 129  
 Lewis & Co., Henry. 130  
 Lide, Martin J. 48  
 Lidgerwood Mfg. Co. 134  
 Linds Air Products Co., The. 171  
 Linder Mch. & Steel Co., Inc. 123  
 Link Belt Co. 1  
 Liquids Despatch Line. 12  
 Littleford Bros. 146  
 Lockett & Co., Ltd., A. M. 1  
 Lockwood, Greene & Co. 53  
 Lombard Iron Works & Supply Co. 16  
 Long Bell Lumber Co. 1  
 Long Co., M. A. 48  
 Long & Allstatter. 122  
 Ludlow Engineers, The. 49  
 Ludlow-Saylor Wire Co. 26  
 Ludlow Valve Mfg. Co. 39  
 Ludowici-Celadon Co. 28  
 Luhrs Co., The Daniel M. 48  
 Lukens Steel Co. 1  
 Lunkenheimer Co. 5  
 Lupton's Sons Co., David. 1  
 Luten, Daniel B. 48

## M

McCalla Co., Harold. 1  
 McCalla & Co., J. B. 59  
 McClave-Brooks Co. 7  
 McClintic-Marshall Co. 25  
 McCrary Co., J. B. 49  
 McDewitt-Fleming Co. 48  
 McEwen Lumber Co. 32  
 McGowan Co., John H. 41  
 McInerney Co., The. 1  
 McLanahan-Stone Mch. Co. 42  
 McMillan, A. 1  
 McMyler Interstate Co. 138  
 McWane Cast Iron Pipe Co. 38  
 McWilliams Co., Inc. 48  
 Macklem Scaffolding Co., John J. 1  
 Macon Concrete Roller Co. 1  
 Main, Chas. T. 48  
 Mal-Gra Castings Co. 133  
 Mallory Machinery Corp. 126  
 Manhattan Perf. Metal Co. 1  
 Manistee Iron Works Co. 40  
 Manning, Maxwell & Moore 1  
 Marbleloid Co., The. 1  
 Marine Bank & Trust Co. 1  
 Marine Metal & Sup. Co. 126  
 Marion Steam Shovel Co. 140  
 Marye, Alger & Alger. 48  
 Maryland Metal Building Co. 31  
 Maryland Trust Co. 118  
 Master Builders Co. 1  
 Mathews Gravity Carrier Co. 2  
 Maury, Dabney H. 48  
 Medart Mfg. Co., Fred. 1  
 Medart Co., The. 17

Mees & Mees. 49  
 Mercantile Trust & Deposit Co. 1  
 Mercer Co., G. A. 110  
 Merchants & Manufacturers Assn. of Louisville. 121  
 Miami Conservancy District 1  
 Michigan Pipe Co. 39  
 Millburn, Heister & Co. 48  
 Miller & Co., G. L., Inc. 1  
 Milliken Bros. Mfg. Co. 25  
 Minter Homes Co., The. 46  
 Mitchell-Tappen Co. 25  
 Mockville, N. C. Ch. of Com. 122  
 Model Land Co. 154  
 Moeschl-Edwards Corrugating Co. 34  
 Moffatt Mch. Mfg. Co. 29  
 Monaghan Machine Co. 1  
 Monro Warrior Coal & Coke Co. 114  
 Moore Dry Kiln Co. 1  
 Morgan Millwork Co. 32  
 Morris Machine Works. 49  
 Morrison & Hackley. 1  
 Morrison & Risman Co., The. 130  
 Morse Agricultural Service. 1  
 Morse Chain Co. 16  
 Motter's Sons, Geo. F. 125  
 Mount, W. D. 49  
 M. O. & W. Engineering Corp. 48  
 Mueller Mfg. Co., H. 1  
 Mueller Metals Co. 1  
 Mullins Body Corporation. 20  
 Mundt & Sons, Chas. 43  
 Mundy Hoisting Engine Co., J. S. 134  
 Murphy's Hotel. 1  
 Murray Iron Works Co. 4  
 Myers & Bro. Co., F. E. 41

## N

Nashville Ind. Corporation. 123-124  
 National Blow Pipe & Mfg. Co., Ltd. 1  
 National Cast Iron Pipe Co. 38  
 National Cement Co. 144  
 National Steel Fabric Co. 143  
 National Steel Rail Co. 130  
 National Transit Pump & Machine Co. 40  
 National Tube Co. 1  
 New Jersey Fdry. & Mch. Co. 1  
 New Jersey Wire Cloth Co. 26  
 Newman Clock Co. 12  
 Newman Mfg. Co. 1  
 New York Central Iron Works. 151  
 New York Continental Jewell Filtration Co., The. 12  
 Nicholson File Co. 56  
 Niles-Bement-Pond Co. 17  
 Norcross, Paul H. 1  
 Norfolk Eq. Corp. 129  
 Northern Fire Apparatus Co. 1  
 Northwest Engineering Co. 134-140  
 Novo Engine Co. 1  
 Nuhsbaum & Co., V. M. 124  
 Nuveen & Co., John. 113

## O

O'Brien & Yost. 1  
 O'Brien Machinery Co. 125  
 Oconee Brick & Tile Co. 1  
 Ohio Refractories Co., The. 10  
 Ohio Steel Foundry Co., The. 20  
 Oliver Iron & Steel Co. 37  
 Ophuls & Hill, Inc. 48  
 Orton & Steinbrenner. 138  
 Osceola Cypress Co. 122  
 Osagood Co. 140  
 Otto Engine Works, The. 1  
 Owen Bucket Co. 138  
 Owensboro Sewer Pipe Co. 1

## P

Pacific Flush-Tank Co. 1  
 Parks Ball Bearing Machine Co., The. 1  
 Parkes Engineering Co. 50  
 Parsons, Klapp, Brinckerhoff & Douglas. 49  
 Pawling & Harnischfeger. 187  
 Pease Co., The C. F. 51  
 Pennsylvania Drilling Co. 50  
 Pennsylvania Pump & Compressor Co. 133

Petroleum Iron Works Co. 38  
 Pannmuller Engineering Co. 123  
 Phoenix Iron Co. 24  
 Pipe & Contractors' Supply Co. 126  
 Pitt Eng. Co. 123  
 Pittsburgh-Des Moines Steel Co. 152  
 Pittsburgh Plate Glass Co. 1  
 Pittsburgh Steel Co. 1  
 Pittsburgh Testing Laboratory. 49  
 Platt Iron Works. 41  
 Plymouth Cordage Co. 1  
 Porter Co., H. K. 1  
 Portland Cement Assn. 145  
 Portsmouth Refractories Co. 1  
 Posey, James. 50  
 Pottstown Steel Co. 124  
 Powell Co., Wm. 4  
 Power Mfg. Co. 1  
 Power Specialty Co. 10  
 Pratt & Whitney Co. 1  
 Prentiss & Co., Inc., Henry. 126  
 Prest-O-Lite Co., Inc. 1  
 Probert Sheet Metal Co. 1  
 Progressive Mfg. Co. 36  
 Proposal Advertisements. 114-115-116-117  
 Provident Savings Bank & Trust Co. 113  
 Publicity Engr. Inc. 43  
 Pulsometer Steam Pump Co. 1  
 Puro Sanitary Drinking Fountain Co. 26  
 Pusey and Jones Co., The. 1

## R

Randle Machinery Co. 123-125  
 Raymond Bros. Impact Pulverizer Co. 42  
 Raymond Mfg. Co., Ltd. 56  
 Reading Chain & Block Corp. 1  
 Reading Iron Co. 38  
 Reed & Ducker. 1  
 Reeves Pulley Co. 1  
 Reflectolite Co., The. 26  
 Regnas & Co., J. R. 24  
 Reilly Mfg. Co., J. J. 24  
 Renneburg & Sons Co., Edw. 42  
 Republic Iron & Steel Co. 1  
 Richards-Wilcox Mfg. Co. 1  
 Richmond Fireproof Door Co. 35  
 Richmond Metal Products Co. 20  
 Richmond Structural Steel Co. 24  
 Ridgway Dynamo & Engine Co. 1  
 Ridgway & Son Co. 29  
 Ripley Fdry. & Mch. Co. 1  
 Ritter Lumber Co., W. M. 1  
 Roanoke Iron & Bridge Wks. 24  
 Roberts Filter Mfg. Co. 12  
 Robertson Co., H. H. 1  
 Robertson, Furman & Murphy. 113  
 Robins & Co., A. K. 1  
 Robins Conveying Belt Co. 148  
 Robinson & Co., Dwight P. 49  
 Robinson & Orr. 130  
 Robinson & Son Co., Wm. C. 1  
 Roebeling's Sons Co., John A. 133  
 Rosensteel Co., The Lewis S. 113  
 Royal Typewriter Co. 1  
 Rust Engineering Co. 6  
 Ryerson & Son, Inc. Jos. T. 1

## S

Saino Mfg. Co., F. L. 1  
 Salem Fdy. & Mch. Wks. 16  
 Sales Corp. 129  
 Samson Cordage Works. 1  
 Savage Mountain Fire Brick Co. 1  
 Savannah Blow Pipe Co. 1  
 Savannah Creosoting Co., Inc. 32  
 Schoedinger, F. O. 51  
 Schofield's Sons Co., J. 8-9  
 Schwabel, Frank. 124  
 Scofield Engineering Co. 49  
 Seranton Forging Co. 20  
 Seaboard Air Line Railway. 155  
 Security Bank Note Co. 110  
 Securo Co., Inc. 118

Seeger Machine Tool Co. 126  
 Seneca Wire & Mfg. Co. 56  
 Septik Tank Co. 1  
 Seyfert's Sons, Inc., L. F. 123  
 Shearer, C. E. 48  
 Shelcote Mfg. Co. 29  
 Shepard Electric Crane & Hoist Co. 18  
 Sherwood, E. C. 130  
 Shreveport Blow Pipe & Sheet Iron Works, Ltd. 37  
 Serrine & Co., J. E. 1  
 Skelton Co., J. G. 130  
 Slaughter Culvert Co. 1  
 Slayton & Co., W. L. 113  
 Smith Co., The T. L. 150  
 Smith Co., Oscar T. 110  
 Smith Co., S. Morgan. 40  
 Smith-Courtney Co. 18  
 Smith Gas Engineering Co. 25  
 Smith-Mayne Mfg. Co. 123  
 Smythe Co., S. R. 49  
 Snead Architectural Iron Works. 25  
 Sonneborn Sons, Inc., L. 3  
 So. Agricultural Tank Line. 1  
 Southern Cotton Oil Co. 1  
 Southeastern Constr. Co. 48  
 Southern Creosoting Co., Ltd. 1  
 Southern Cypress Manufacturers' Assn. 34  
 Southern Hotel. 1  
 Southern Ice Machine Co. 13  
 Southern Iron & Equip. Co. 130  
 Southern Mosaic Tile Co. 29  
 Southern Phosphate Corp. 124  
 Southern Spindle & Flyer Co. 1  
 Southern States Portland Cement Co. 144  
 Southern Steel Products Co. 24  
 Southern Steel & Rolling Mill, Inc. 24  
 Southern Traffic Service. 118  
 Southern Wood Preserving Co. 1  
 Southside Fdry. & Mch. Wks. 1  
 Spiker & Loe. 50  
 Spindler Estate, Chas. 129  
 Sprague Electric Works. 1  
 Springfield Boiler Co. 6  
 Stacey Mfg. Co. 124  
 Standard Rail & Steel Co. 130  
 Standard Wood Pipe Co. 39  
 Stanley Lumber Co., H. F. 1  
 Starrett Co., L. S. 16  
 Star Wood Products Co., Inc. 126  
 St. Charles Hotel. 43  
 Steel, John A., Jr. 43  
 Steele & Sons, J. C. 34  
 Sterling Engine Co. 128  
 Stern, R. & J. 128  
 Stevens Bros. & Co. 10  
 Stewart Iron Works Co. 26  
 Stone & Webster, Inc. 1  
 Strand & Co., N. A. 1  
 Stroudsburg Engine Works. 134  
 Structural Slate Co. 28  
 Stumpf Inc.-Flow Engine Co., Inc. 1  
 Sullivan Machinery Co. 1  
 Sun Shipbuilding Co. 1  
 Swanson-McGraw, Inc. 48  
 Swedish Venetian Blind Co. 1  
 Sydnor Pump & Well Co., Inc. 40

## T

Table of Contents. 55  
 Tait, Godfrey, M. S. 49  
 Taplin-Rice-Clerkin Co. 1  
 Tarr, Louis A. 1  
 Taylor Co., The Halsey W. 1  
 Tennessee Coal, Iron & R.R. Co. 23  
 Tennessee Copper Co. 142  
 Texas Co. 1  
 Texhoma Oil & Refining Co. 18  
 Thayer Son & Co., S. B. 50  
 Thew Shovel Co. 6  
 Thomas Grate Bar Co. 1  
 Tide Foundry & Mach. Co. 4  
 Title Guarantee & Trust Co. 1  
 Titus, E. E. 1  
 Todd & McCullough. 113  
 Toomey, Inc., Frank. 126  
 Traylor Engineering & Mfg. Co. 42  
 Treadwell Construction Co. 1  
 Tri-State Blue Print & Supply Co. 48  
 Truscon Steel Co. 1  
 Tucker & Laxton. 49  
 Turner, C. A. P. 48  
 Turner Co., C. 140

## U

Union Drawn Steel Co. 22  
 Union Mining Co. 10  
 Union Sulphur Co. 43  
 United Iron & Metal Co. 120  
 Universal Road Mch. Co. 1  
 U. S. Asphalt Refining Co. 146  
 U. S. Cast Iron Pipe & Fdry. Co. 38  
 U. S. Gypsum Co. 1  
 U. S. Motor Truck Co. 50  
 U. S. Power Equip. Co. 122

## V

Vendor Slate Co. 28  
 Vilter Mfg. Co. 4  
 Virginia Bridge & Iron Co. 25-129  
 Virginia Mch. & Well Co., Inc. 40  
 Virginia Steel Supply Co. 24  
 Vogt Machine Co., Inc., Henry. 13  
 Vonnegut Hardware Co. 1

## W

Wagner Electric Corp. 1  
 Wallace & Crenshaw. 42  
 Walsh Fire Clay Prod. Co. 10  
 Walsh & Weldner Boiler Co. 151  
 War Dept. 1  
 Warner Petroleum Co. 1  
 Warren Bros. Co. 1  
 Warsaw Elevator Co. 1  
 Waterbury Mfg. Co. 36  
 Watson-Truck Corp. 1  
 Wayne Tank & Pump Co. 45  
 Weber Co., F. 1  
 Wehr Co., The. 147  
 Wehr & Walden. 48  
 Weller, Francis R. 48  
 Weller Mfg. Co. 17  
 Westbrook Elevator Co., W. J. 29  
 Westbrook Elevator Mfg. Co., Inc. 29  
 West Construction Co. 130  
 Western Tool & Mfg. Co. 1  
 Westinghouse Electric & Mfg. Co. 1  
 Westinghouse Traction Brake Co. 132  
 Weston Electrical Instr. Co. 14  
 West Virginia Rail Co. 130  
 Wetherill, Wayne. 148  
 Wetherill & Co., Inc., Robt. 1  
 Wheeling Steel Products Co. 22  
 Whitcomb Co., Geo. D. 132  
 White Engineering Corporation, The J. G. 49  
 White Co., Gilbert C. 48  
 Whiting Corp., The. 18  
 Wicks Machinery Co. 127  
 Wickwire Spencer Steel Corp. 1  
 Wier Lumber Co., R. W. 1  
 Wiley & Co., Inc. 48  
 Wiley & Wilson. 48  
 Wilfong Iron Works Co. 1  
 Willard F. 1  
 Willard, Boggs & Co. 128  
 Williams Patent Crusher & Pulverizer Co. 1  
 Willis, W. N. 48  
 Wilson Co., The. 23  
 Wilson & Co., E. H. 129  
 Wilson Corp., The J. G. 1  
 Wilson-Hock Co. 1  
 Wood Drill Works. 140  
 Wood & Co., R. D. 39  
 Wood Iron & Steel Co., Alan 21  
 Wood's Sons Co., T. B. 16  
 Woolford Wood Tank Mfg. Co., G. 1  
 Worthington Pump & Machinery Corp. 1  
 Wren Community League. 120  
 Wright Mfg. Co. 18  
 Wyckoff & Son Co., A. 39

## Y

York Mfg. Co. 12  
 Young & Selden Co. 1  
 Youngtown Sheet & Tube Co. 44

## Z

Zelnicker Sup. Co., Walter A. 130  
 Zouri Drawn Metals Co. 1

Advs. marked † not in this issue.  
 Advs. marked \* appear in first issue of the month.  
 Advs. marked \* appear every other week.

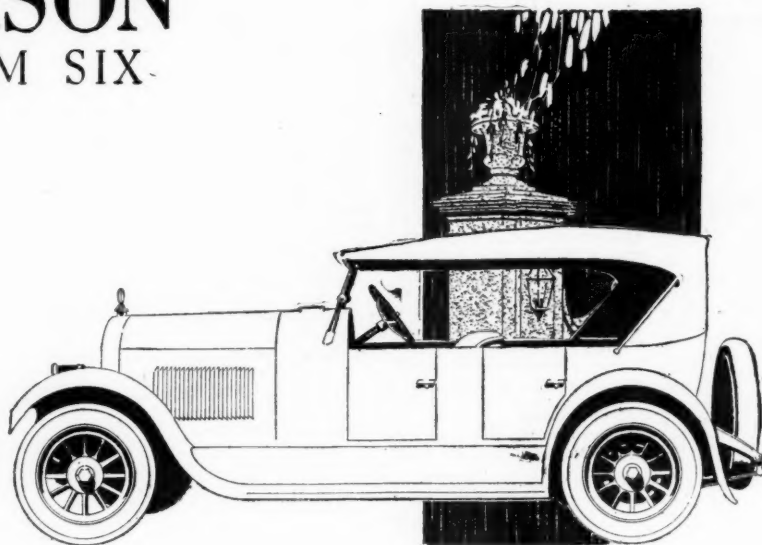
Classified Opportunities

Pages 117-118

Proposal Advertisements

Pages 114-115-116-117

*The Coachbuilt*  
**ANDERSON**  
ALUMINUM SIX



**U**P and down Automobile Row in cities everywhere, motor car dealers are asking how the price of this new Anderson is possible. It would *not* be possible but for the fact that Anderson is located in the South where Nature supplies power at a fraction of the average cost, where labor conditions are ideal, where Anderson cuts its hardwoods from its own forests, and builds its own bodies complete.

*The Anderson Light Aluminum Six is built of only the best parts, such as Continental Red Seal Motor, Borg and Beck Clutch, Westinghouse Starting, Lighting and Ignition. Completely equipped, even to a foot dimmer for headlights. Fitted with a real Anderson Coachbuilt body, the master-piece of five generations of coachbuilding. Be sure you see this sensational car.*

**Touring Car \$1195**

**Coach \$1450**

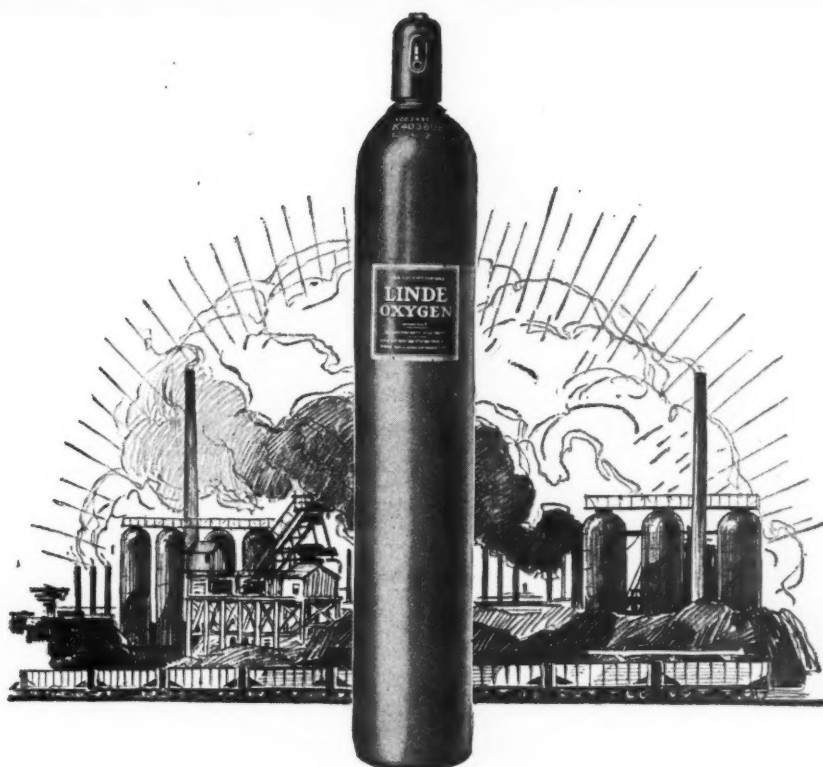
**Sedan \$1595**

*f. o. b. Rock Hill, S. C.*

**ANDERSON MOTOR CO., ROCK HILL, S. C.**

**SOUTHERN CARS FOR SOUTHERN PEOPLE**





## The Scope of Linde Service

Linde Service goes beyond the mere supplying of its products. It includes a carefully planned method of bringing engineering advice and assistance into close touch in the field with the individual user's problems and needs.

Linde thus offers its customers the fruits of practical experience gained by its Service Engineers through their intimate contact with the use and development of the Oxy-Acetylene process.

Through 18 District Sales Offices Linde places its Service

within convenient reach of every Linde user.

The growing chain of Linde Distributing Stations and District Sales offices is the logical development of Linde's desire to give its patrons every facility and service in the use of Linde products.

### THE LINDE AIR PRODUCTS COMPANY

*The Largest Producer of Oxygen in the World*

Carbide and Carbon Building, 30 East 42d St., New York City

31 plants—58 warehouses

#### *District Sales Offices:*

Atlanta  
Baltimore  
Boston  
Buffalo

Chicago  
Cleveland  
Dallas

Detroit  
Kansas City  
Los Angeles  
Milwaukee

New Orleans  
New York  
Philadelphia

Pittsburgh  
San Francisco  
Seattle  
St. Louis

# LINDE OXYGEN



### Where the Facts Came From

You may want the facts that form the basis of this dramatized incident. We can give you, on request, information on many installations where savings several times as great have been effected. In one case a western manufacturer was able to discard three of his four boiler plants after his Grinnell forced circulation hot water heating system was installed. The booklet, "Five Factors in Heating Cost," will be sent to any one interested in heating industrial buildings. Send for a copy today. Address Grinnell Company, Inc., 292 W. Exchange St., Providence, R. I.

## Have you a Bolshevik like this in your Plant?

**President:** "Jim Carney—impossible! I'd as soon suspect myself of being a Red. Why, he started with us in the old works on River Street. We were planning to retire him on a tidy pension in July."

**Production Manager:** "I wouldn't believe it myself, but how do you explain this? As foreman he has always just lived in his own department. Lately he's been hanging around the engine room a lot. Never used to miss a day. Lately, he's been off constantly and yesterday we saw him go into the building in which a group of radicals has offices. Last night, with the thermometer below zero, the watchman saw him out behind the boiler house. Thought he saw the glint of a pistol. But this morning when we searched his overcoat all we found was a steel tape line."

**Chief Engineer:** "And last Thursday my assistant found him behind the separator examining the exhaust pipe vent in the wall. He told me that it would be simple to move a charge of dynamite in from the outside and blow the engine room to pieces."

**President:** "But what does Jim say?"

**Production Manager:** "That's the worst of it. He won't talk. Seems abstracted. When he left this afternoon all he said was that if anything special came up he could be reached at Main 761. It's up to you or the police department to wring the truth out of him."

**President:** "Main 761—why that's our Consulting Engineer's number. I'll call him right up."

\* \* \* \* \*

Half an hour later the Consulting Engineer and Jim Carney entered the President's office.

"Well, Jim," said the President, "what are you up to now?"

"It's that pension, sir," stammered Jim, "I—"

"Perhaps I'd better explain," smiled the Consulting Engineer. "I'm afraid Jim's a little too modest. About a month ago he came to me and said he had heard he was going to be pensioned off. Before he went he wanted to do something big for that \$600 a year."

"Something big—what do you mean?" cut in the President.

"It seems your old Superintendent Swanson turned him down pretty hard on a proposition he submitted and Jim said he didn't want to bring it up again until he had all the facts. I saw he was on a big thing and I agreed to keep it quiet and help him work it out. You see it was all in appreciation of what the firm was going to do for him. The figures came in today and I had just told him before you called up that in return for his \$600 pension, he was presenting you, his chief, with a pension of \$5,000 a year as long as your business lasts."

**President:** "You're joking—why it's preposterous!"

**Consulting Engineer:** "Not at all. Jim read a Grinnell advertisement about heating a plant with exhaust steam. Didn't know how, you understand, but he stuck to the idea and collected the data we needed for—"

**Production Manager:** "But \$5,000 a year, that's the cost of our whole year's heating!"

**Consulting Engineer:** "Right! Grinnell Company, whom I always depend on for such special systems, finds that the exhaust steam from the generating plant will run a hot water heating system and save the entire fuel bill—\$5,000 a year. That's what Jim's been doing."

**Production Manager:** "That explains a lot."

**President:** "Jim, old man, I told them you couldn't—why, old boy—why Jim—"

## GRINNELL COMPANY

Automatic Sprinkler  
Systems

Steam & Hot Water  
Heating Equipment

Humidifying and  
Drying Equipment

Fittings, Hangers  
and Valves

Pipe Bending,  
Welding, etc.

Power and  
Process Piping

*If it's Industrial Piping, take it up with us*



